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DIAGNOSTIC COST GROUP (DCG) AND HIERARCHICAL COEXISTING CONDITIONS (HCC) MODELS FOR MEDICARE RISK ADJUSTMENT

Volume II

Appendices to Final Report

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APPENDIX A:

DCG PROJECT KEY PERSONNEL AND CONSULTANTS

APPENDIX A: DCG PROJECT KEY PERSONNEL AND CONSULTANTS

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APPENDIX B:

DIAGNOSTIC GROUP (DXGROUP) DEFINITIONS AND PROSPECTIVE STATISTICS

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
INFECTIOUS AND PARASITIC DISEASES		
1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS, ENCEPHALITIS)	013, 045-049, 094, 320-325
2	SEPTICEMIA/SHOCK	038, 785.59
3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	042-044, 136.3
4	OTHER INFECTIOUS AND PARASITIC DISEASES	
4.01	bacterial enteritis (intestinal infections)	003, 004, 008, 008.0-008.5
4.02	viral enteritis (intestinal infections)	008.6, 008.8
4.03	other intestinal infections	001, 005, 006, 007, 009
4.04	tuberculosis	010-012, 014-018
4.05	strep throat/scarlet fever	034, 034.0, 034.1
4.06	other bacterial infections	002, 020-027, 030-033, 035-037, 039-040
4.07	bacterial infection in other diseases	041
4.08	herpes zoster (shingles)	053
4.09	herpes simplex	054
4.10	viral hepatitis	070, 573.1, 573.2
4.11	other viral infections	050-052, 055-057, 060-066, 071-079
4.12	late syphilis, symptomatic	093, 095
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	110, 111
4.14	thrush	112.0
4.15	mycoses (fungal diseases), miscellaneous	112.2, 112.4, 112.5, 112.8, 114-117
4.16	other infections	080-088, 090-092, 096, 097, 097.0, 097.1, 097.9, 098-104, 112, 112.3, 112.9, 118, 120-136, 136.0, 136.1, 136.4, 136.5, 136.8, 136.9
LATE EFFECTS		
5	LATE EFFECTS	
5.01	infection late effects	137-139, 326
5.02	cerebrovascular disease late effects	438
5.03	injury late effects	905-909, E929
MALIGNANT NEOPLASM		
6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	
6.01	cancer of mouth/tongue	141-145
6.02	cancer of pharynx	146-149
6.03	cancer of larynx	161
6.04	other respiratory/intrathoracic cancer	160, 164, 165
7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	
7.01	cancer of esophagus	150
7.02	cancer of stomach	151
7.03	cancer of small bowel/peritoneum	152, 156, 158
7.04	cancer of liver	155
7.05	cancer of pancreas	157
7.06	other, unspecified cancer of digestive organs/peritoneum	159

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DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
8		COLON CANCER	153
9		RECTAL CANCER	154
10		LUNG CANCER	162, 163
11		BREAST CANCER	174, 175
12		HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	
	12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	176, 200-202
	12.02	multiple myeloma	203
	12.03	lymphoid leukemia	204, 204.0-204.2, 204.8, 204.9
	12.04	myeloid leukemia	205
	12.05	other leukemia	206-208
13		CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	
	13.01	cancer of uterus	179, 182
	13.02	cancer of cervix/female genital organs	180, 184
14		CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	181, 183
15		CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	
	15.01	prostate cancer	185
	15.02	cancer of testis/male genital organs	186, 187
16		CANCER OF BLADDER/KIDNEY/URINARY ORGANS	188, 189, 189.0-189.4, 189.8, 189.9
17		NEOPLASM OF NERVOUS SYSTEM	
	17.01	cancer of the eye	190
	17.02	cancer of the brain/nervous system/pituitary, pineal glands	191, 192, 194.3, 194.4
	17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	225, 227.3, 227.4
18		OTHER CANCER	
	18.01	cancer of bone and articular cartilage	170
	18.02	cancer of connective and other soft tissue	171
	18.03	melanoma	172
	18.04	skin cancer, except melanoma, including lip	140, 173, 232
	18.05	thyroid/endocrine cancer	193, 194, 194.0, 194.1, 194.5, 194.6, 194.8, 194.9, 259.2
	18.06	other/ill-defined site cancer	195, 199, 199.1
19		SECONDARY CANCERS	
	19.01	secondary cancer of lymph node	196
	19.02	secondary cancer of respiratory and digestive systems	197
	19.03	secondary cancer of other site	198
	19.04	disseminated cancer	199.0

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
BENIGN NEOPLASM, CARCINOMA IN SITU		
20	BENIGN NEOPLASMS	
20.01	benign neoplasm of digestive system	210, 211
20.02	benign neoplasm of respiratory system	212
20.03	benign neoplasm of skin	216
20.04	benign neoplasm of breast/other breast disorders	217, 610, 611
20.05	benign neoplasm of urinary	223
20.06	benign neoplasm of eye	224
20.07	other benign neoplasms	213-215, 218-222, 226, 227, 227.0, 227.1, 227.5, 227.6, 227.8, 227.9, 228, 229, 229.0, 229.8, 229.9
21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	
21.01	carcinoma in situ of digestive organs	230
21.02	carcinoma in situ of respiratory system	231
21.03	carcinoma in situ of other sites, except skin	233, 234
21.04	neoplasm of uncertain behavior, specified sites	235-237
21.05	neoplasm of uncertain behavior nec/nos	238
21.06	unspecified neoplasm	239
ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES		
22	DIABETES WITHOUT COMPLICATIONS	250, 250.0, 251.3
23	DIABETES WITH ACUTE COMPLICATIONS	250.1-250.3
24	DIABETES WITH CHRONIC COMPLICATIONS	
24.01	diabetes with renal manifestation	250.4
24.02	diabetes with other specified complications	250.6-250.8
24.03	diabetes with unspecified complications	250.9
25	HYPOGLYCEMIA	
25.01	hypoglycemic coma	251.0
25.02	other hypoglycemia	251.1, 251.2
26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	276
27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	
27.01	goiter	240, 241
27.02	thyrotoxicosis, including Graves' disease	242
27.03	thyroid disorders	243-246
27.04	adrenal gland disorders, e.g., Cushing's syndrome	255
27.05	ovarian dysfunction	256
27.06	testicular dysfunction	257
27.07	other endocrine disorders	259, 259.0, 259.1, 259.3, 259.4, 259.8, 259.9
27.08	pituitary/parathyroid/thymus/polyglandular disorders	251.4, 251.5, 252-254, 258
27.09	protein-calorie malnutrition	260-263, 799.4
27.10	vitamin/other nutritional deficiencies (e.g., rickets, scurvy)	264-271
27.11	disorders of lipoid metabolism (high cholesterol)	272

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DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
27.12	disorders of plasma protein metabolism	273
27.13	disorders of mineral metabolism	275
27.14	cystic fibrosis, metabolism disorders, nec/nos	277
27.15	other hyperalimentation	278, 278.2, 278.3, 278.4, 278.8
27.16	obesity/localized adiposity	278.0, 278.1
GASTROINTESTINAL DISORDERS		
28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	
28.01	acute pancreatitis	577.0
28.02	chronic pancreatitis/other pancreatic diseases/intestinal malabsorption	251, 251.8, 251.9, 577, 577.1, 577.2, 577.8, 577.9, 579
29	END STAGE LIVER DISORDERS	
29.01	end stage liver disorders	570, 572.2, 572.3, 572.4, 572.8
29.02	esophageal varices	456.0, 456.1, 456.2
30	OTHER LIVER DISORDERS	
30.01	cirrhosis	571.2, 571.3, 571.5, 571.6
30.02	other liver disorders, including toxic hepatitis	452, 571, 571.0, 571.1, 571.3, 571.4, 571.8, 571.9, 572, 572.0, 572.1, 573, 573.0, 573.3, 573.4, 573.8, 573.9
31	DISEASES OF ESOPHAGUS	530
32	ULCERS	
32.01	ulcer without perforation	531, 531.0, 531.3, 531.4, 531.7, 531.9, 532, 532.0, 532.3, 532.4, 532.7, 532.9, 533, 533.0, 533.3, 533.4, 533.7, 533.9, 534, 534.0, 534.3, 534.4, 534.7, 534.9
32.02	ulcer with perforation	531.1, 531.2, 531.5, 531.6, 532.1, 532.2, 532.5, 532.6, 533.1, 533.2, 533.5, 533.6, 534.1, 534.2, 534.5, 534.6
33	GASTRITIS/OTHER GASTRIC DISORDERS	
33.01	pyloric/duodenal obstruction	537.0, 537.3
33.02	gastritis/other gastric disorder (stomach disorders)	535-537, 537.1, 537.2, 537.4, 537.5, 537.6, 537.8, 537.81-537.83, 537.89, 537.9, 564, 787
34	APPENDICITIS	540-543
35	ABDOMINAL HERNIA/ COMPLICATED	551, 552
36	ABDOMINAL HERNIA/ UNCOMPLICATED	550, 553
37	INFLAMMATORY BOWEL DISEASE	
37.01	regional enteritis (Crohn's disease)	555
37.02	ulcerative colitis	556
38	PERITONITIS/INTESTINAL OBSTRUCTION	
38.01	intestinal obstruction	560
38.02	peritonitis	567
38.03	other peritoneal disorders	568

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
39		DIVERTICULA OF INTESTINE	562
40		ANAL/RECTAL/GASTROINTESTINAL DISORDERS	
	40.01	hemorrhoids	455
	40.02	anal/rectal disorders	565, 566, 569.0, 569.1, 569.2, 569.3, 569.4
	40.03	intestinal abcess/ulceration/perforation	569.5, 569.8
	40.04	other intestinal disorders	558, 558.1, 558.2, 558.9, 569, 569.9
41		GALLBLADDER DISORDERS	
	41.01	cholelithiasis (gallstones)	574.2
	41.02	biliary tract disease	576.1-576.5, 576.8
	41.03	other gallbladder disorders	574, 574.0, 574.1, 574.3-574.5, 575, 576, 576.0, 576.9
42		GASTROINTESTINAL HEMORRHAGE	578
DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE			
43		GOUT/ARTHROPATHY/DERANGEMENTS	
	43.01	gout/crystal arthropathy	274, 712
	43.02	other arthropathy/joint disorders, derangements, joint pain/stiffness	713, 716-719
44		CONNECTIVE TISSUE DISEASES	
	44.01	systemic lupus erythematosus, scleroderma, arteritis, and other connective tissue disease	446, 710
	44.02	rheumatoid arthritis and other inflammatory polyarthropathy	714
	44.03	inflammatory spondylopathies	720
	44.04	polymyalgia rheumatica	725
45		ARTHROPATHY/BONE INFECTION	
	45.01	arthropathy with infection	711
	45.02	osteomyelitis	730
46		OSTEOARTHRITIS	715
47		BACK DISORDERS (E.G., HERNIATED DISC, LUMBAGO, SCIATICA, BACKACHE)	721-724
48		DISORDERS OF SOFT TISSUES (E.G., TENDONITIS, BURSITIS)	726-729
49		OTHER BONE DISORDERS	
	49.01	osteoporosis	733.0, 733.1
	49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	731-733, 733.2-733.9, 737, 738
-	49.03	flat foot, acquired deformities of toe	734, 735
	49.04	other acquired limb deformities	736
DISEASES OF BLOOD AND BLOOD-FORMING ORGANS			
50		IRON DEFICIENCY AND OTHER/UNSPECIFIED ANEMIAS	280, 281, 285
51		OTHER BLOOD DISEASES	
	51.01	sickle cell and other hereditary hemolytic anemias	282

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
51.02	acquired hemolytic anemia	283
51.03	aplastic anemia	284
51.04	hemophilia and other coagulation defects	286
51.05	purpura/thrombocytopathy/hemorrhagic conditions	287
51.06	white blood cell disorders	288
51.07	immune disorders	279
51.08	other blood disease	289
MENTAL DISORDERS		
52	DEMENTIA	
52.01	senile/presenile psychoses	290
52.02	other organic psychotic conditions	294
52.03	cerebral degeneration/Alzheimer's disease/Reye's syndrome	331
52.04	senility without psychosis	797
53	SUBSTANCE-RELATED PSYCHOSES	
53.01	alcoholic psychoses	291
53.02	drug psychoses	292
54	DELIRIUM/HALLUCINATIONS	
54.01	delirium/delusions/hallucinations	293
54.02	hallucinations, symptomatic	780.1
55	SCHIZOPHRENIC DISORDERS	295
56	MANIC AND DEPRESSIVE DISORDERS, INCLUDING MAJOR DEPRESSIVE DISORDE	296
57	PARANOIA AND OTHER PSYCHOSES	
57.01	paranoid states	297
57.02	other nonorganic psychoses	298
58	NEUROTIC DISORDERS	300
59	SUBSTANCE ABUSE AND DEPENDENCE	
59.01	alcohol dependence	303
59.02	drug dependence	304
59.03	non-dependent abuse of drugs	305
60	OTHER MENTAL DISORDERS	
60.01	personality disorders	301
60.02	sexual deviations and disorders	302
60.03	psychophysiologic disorders	306
60.04	acute reaction to stress	308
60.05	adjustment reaction	309
60.06	nonpsychotic organic brain syndrome	310
60.07	depression, not elsewhere classified	311
60.08	behavior disorder	312
60.09	developmental behavioral disorders	313-316, 995.5, 995.81, V40

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
	60.10	mental retardation	317-319
	60.11	other mental disorders	299, 307, 307.0-307.2, 307.20-307.23, 307.3, 307.4, 307.40-307.49, 307.5,307.50-307.54, 307.59, 307.6-307.8, 307.80, 307.89, 307.9
NEUROLOGICAL DISORDERS			
61		HEADACHES	307.81, 346, 784.0
62		DEGENERATIVE NEUROLOGIC DISORDERS	
	62.01	Parkinson's disease	332
	62.02	Huntington's Disease, essential tremor, other abnormal movement disorders	333
	62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	335
	62.04	other spinal cord disease	336
	62.05	autonomic nerve disorder	337
	62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	330, 334
63		OTHER NEUROLOGIC DISORDERS	
	63.01	multiple sclerosis, other central nervous system dymelination	340, 341
	63.02	infantile cerebral palsy	343
	63.03	quadriplegia	344.0
	63.04	paraplegia	344.1
	63.05	cauda equina syndrome	344.6
	63.06	other paralytic disorders	344, 344.2-344.5, 344.8, 344.9
	63.07	nervous/musculoskeletal system symptoms	781
	63.08	other central nervous system disorders	348, 349
64		EPILEPSY AND OTHER SEIZURE DISORDERS	345, 780.3
65		MONONEUROPATHY	
	65.01	trigeminal nerve disorders	350
	65.02	facial nerve disorder, including Bell's Palsy	351
	65.03	root/plexus disorders	353, 353.8, 353.9
	65.04	root/plexus lesions	353.1, 353.4
	65.05	other cranial nerve disorders	352, 352.0, 352.1, 352.2, 352.4, 352.5, 352.6, 352.9
	65.06	neuropathy of upper limb	354
	65.07	neuropathy of leg	355
	65.08	other neuropathy	352.3, 353.0, 353.1, 353.2, 353.3, 353.5, 353.6
66		POLYNEUROPATHY	
	66.01	peripheral neuropathy	356
	66.02	inflammatory/toxic neuropathy, including Guillain-Barre syndrome	357
	66.03	myoneural disorders/myasthenia gravis	358
	66.04	muscular dystrophies	359
67		CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE, OTHER BRAIN CONDITIONS	348.0-348.5, 348.8, 348.9

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
CIRCULATORY DISORDERS			
68		VALVULAR AND RHEUMATIC HEART DISEASE	
	68.01	rheumatic fever/heart disease	390-393, 397, 398
	68.02	mitral or aortic valve/endocardia disease	394, 395, 424
	68.03	mitral/aortic valve disorders	396
69		HYPERTENSION, UNCOMPLICATED	
	69.01	essential hypertension	401, 401.1, 401.9
	69.02	hypertensive heart disease	402, 402.1, 402.9
70		HYPERTENSION, COMPLICATED	
	70.01	malignant hypertension	401.0
	70.02	malignant hypertensive heart disease	402.0
	70.03	hypertensive heart and renal disease	403, 404
	70.04	secondary hypertension	405
	70.05	hypertension encephalopathy	437.2
71		MYOCARDIAL INFARCTION	
	71.01	myocardial infarction	410, 410.0, 410.00, 410.02, 410.1, 410.10, 410.12, 410.2, 410.20, 410.22, 410.3, 410.30, 410.32, 410.4, 410.40, 410.42, 410.5, 410.50,410.52, 410.6, 410.60, 410.62, 410.7, 410.70, 410.72, 410.8, 410.80, 410.82, 410.9, 410.90, 410.92
	71.02	old myocardial infarction	412
	71.03	other chronic ischemic heart disease	414
72		ACUTE MYOCARDIAL INFARCTION (HEART ATTACK)	410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91, 429.5, 429.6
73		OTHER ACUTE ISCHEMIA	411, 411.1, 411.8
74		ANGINA PECTORIS	413
75		PULMONARY HEART DISEASE	
	75.01	pulmonary embolism (blood clot)	415.1
	75.02	other pulmonary heart disease	415, 415.0, 416, 417
76		RHYTHM AND CONDUCTION DISORDERS	
	76.01	conduction disorders/cardiac dysrhythmias	426, 427, 427.8, 427.9
	76.02	premature heart beats	427.6
77		ATRIAL ARRHYTHMIA	427.0, 427.2, 427.3
78		VENTRICULAR TACHYCARDIA	427.1
79		HEART ARREST/ SHOCK	427.4, 427.5, 785.5, 785.50, 785.51, 798
80		HEART FAILURE	428

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DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
81		OTHER CARDIAC DISEASE	
	81.01	acute pericarditis, post-myocardial infarction	411.0, 420, 423
	81.02	acute endo/myocarditis	421, 422
	81.03	cardiomyopathy/myocarditis	425, 429.0, 429.1
	81.04	cardiomegaly (enlarged heart)	429.3
	81.05	other heart disease	429, 429.4, 429.7-429.9
82		CEREBRAL HEMORRHAGE	430-432
83		PRECEREBRAL ARTERIAL OCCLUSION	433
84		CEREBROVASCULAR DISEASE	
	84.01	cerebrovascular accident (stroke)	434, 436, 437, 437.0, 437.1, 437.3-437.9
	84.02	hemiplegia (paralysis of one side of body)	342
	84.03	aphasia (loss of language skills/comprehension)	784.3
85		TRANSIENT CEREBRAL ISCHEMIA	435
86		ATHEROSCLEROSIS	
	86.01	atherosclerosis/arteriosclerosis of major vessel	440.0-440.2
	86.02	atherosclerosis/general, arteriosclerotic cardiovascular disease/arteriosclerosis	429.2, 440, 440.8, 440.9
87		ANEURYSM	
	87.01	aortic aneurysm	441
	87.02	other aneurysm	442
88		ARTERIAL EMBOLISM AND THROMBOSIS	444
89		PERIPHERAL VASCULAR DISEASE	
	89.01	specified peripheral vascular disease	443, 443.1, 443.8
	89.02	Raynaud's syndrome	443.0
	89.03	peripheral vascular disease	443.9
	89.04	other arterial disease	447
	89.05	disease of capillaries	448
	89.06	vascular insufficiency of intestines	557
	89.07	gangrene	785.4
90		THROMBOPHLEBITIS	
	90.01	phlebitis and thrombophlebitis	451, 451.1, 451.11, 451.19, 451.2, 451.8, 451.81, 451.89, 451.9, 453
	90.02	noninfectious lymphatic disorders	457
	90.03	hemorrhage nos	459.0
	90.04	compression of vein	459.2
91		HYPOTENSION (LOW BLOOD PRESSURE)	458
92		OTHER CIRCULATORY DISEASE	
	92.01	superficial phlebitis-leg	451.0
	92.02	varicose veins	454, 456, 456.3-456.6, 456.8
	92.03	other circulatory disease/postphlebitic syndrome	459, 459.1, 459.9

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
92.04	other specified circulatory disorders	459.8
DISORDERS OF THE EYE AND ADNEXA		
93	DISORDERS OF THE EYE AND ADNEXA	
93.01	diabetic retinopathy	250.5, 362.0, 362.01
93.02	proliferative diabetic retinopathy	362.02
93.03	endophthalmitis (eye inflammation)	360.0, 360.1
93.04	retinal disorders	361, 362.1, 362.10,-362.18, 362.2, 362.21, 362.29, 362.3, 362.30-362.37, 362.4, 362.40-362.43, 362.5, 362.50, 362.51-362.57, 362.6, 362.60-362.68, 362.7, 362.70-362.77, 362.8, 362.81-362.85, 362.89, 362.9
93.05	glaucoma	365
93.06	cataract/lens replacement	366, V431
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	367
93.08	vitreous hemorrhage	379.23
93.09	other eye disorders	360, 360.2-360.6, 360.8, 360.9, 363, 364, 368-379, 379.0, 379.00-379.09, 379.1, 379.11-379.16, 379.19, 379.2, 379.21, 379.22, 379.24-379.26, 379.29, 379.3, 379.31-379.34, 379.39, 379.4, 379.41-379.43, 379.5, 379.50-379.59, 379.8, 379.9, 379.90-379.93
DISORDERS OF THE EAR AND MASTOID PROCESS		
94	EAR DISORDERS	
94.01	impacted earwax	380.4
94.02	otitis media (middle ear infection)	381, 382
94.03	vertiginous syndromes (e.g., vertigo, Meniere's disease)	386
94.04	hearing loss	389
94.05	other ear disorders	380, 380.0-380.3, 380.5, 380.8, 380.9, 383-385, 387, 388
DISEASES OF THE RESPIRATORY SYSTEM		
95	NOSE/ THROAT DISEASES	
95.01	acute nose/throat infection (e.g., common cold)	460-465, 475
95.02	nasal polyps/allergic rhinitis (e.g., hay fever)	471, 477
95.03	chronic sinusitis	473
95.04	larynx/vocal cord diseases	476, 478.4, 478.5, 478.6, 478.7
95.05	paralysis of vocal cords/larynx	478.3
95.06	disorders of teeth, gum, and jaw (e.g., periodontitis, gingivitis)	520-526, 526.0-526.4, 526.8, 526.9
95.07	other diseases of upper respiratory system	470, 472, 474, 478, 478.0-478.2, 478.8, 478.9
95.08	salivary gland diseases	527
95.09	other oral soft tissue/tongue/jaw disorders	526.5, 528, 529
96	EMPHYSEMA/CHRONIC BRONCHITIS	491, 492, 496, 518.1, 518.2
97	OTHER BRONCHITIS	466, 490
98	VIRAL PNEUMONIA/INFLUENZA	
98.01	viral pneumonia	480
98.02	influenza	487

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
99		GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	482.0, 482.1, 482.4, 482.8
100		BACTERIAL PNEUMONIA	
	100.01	pneumococcal and other specific bacterial pneumonia	481, 482, 482.3
	100.02	other and unspecified pneumonia	482.9, 483-486
101		ASTHMA	493
102		LUNG DISEASES DUE TO EXTERNAL AGENTS	
	102.01	bronchiectasis/lung diseases due to specified external agents (e.g., black lung disease)	494, 495, 500-506
	102.02	aspiration pneumonia	507
	102.03	respiratory conditions due to other and unspecified external agents/postinflammatory fibros	506, 515
103		PLEURISY/PNEUMOTHORAX	511, 512
104		OTHER LUNG DISEASE	
	104.01	empyema/abscess of lung	510, 513
	104.02	pulmonary congestion/hypostasis	514
	104.03	acute lung edema nos	518.4
	104.04	post trauma/surgery pulmonary insufficiency	518.5
	104.05	other lung disease	516-518, 518.0, 518.3, 519
105		RESPIRATORY FAILURE/ARREST	
	105.01	respiratory failure	518.8, 799.0
	105.02	respiratory arrest	799.1
DISEASES OF THE GENITOURINARY SYSTEM			
106		RENAL FAILURE	
	106.01	nephritis, dialysis encounter	580-583, V56
	106.02	acute renal failure	584
	106.03	chronic renal failure	585
	106.04	renal failure, unspecified	586
	106.05	impaired renal function	587-589
107		KIDNEY INFECTION	590
108		RENAL/URETERAL/BLADDER CALCULUS	592, 594
109		OTHER RENAL/URETERAL DISEASES	
	109.01	urethral stricture	598
	109.02	hydronephrosis/other renal/urethral disorders	591, 593
110		OTHER URINARY TRACT INFECTIONS	595, 597, 599.0
111		OTHER URINARY DISORDERS	596, 599, 599.1-599.9
112		PROSTATE/TESTICULAR/PENILE DISORDERS	
	112.01	hyperplasia of prostate	600

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
112.02	other prostatic disorders	601, 602
112.03	penis/testis/male genital organs disorders	603-607, 607.0-607.3, 607.8, 607.9, 608, 608.0-608.4, 608.8, 608.9
113	DISEASES OF FEMALE GENITAL ORGANS	
113.01	diseases of female pelvic organs	614-616, 616.2-616.5, 616.8, 616.9, 617, 619-621
113.02	vaginal and cervical diseases	112.1, 131, 616.0, 616.1, 622, 624
113.03	other diseases of female genital organs	623, 625, 625.0-625.5, 625.8, 625.9, 626, 628, 629
113.04	female stress incontinence	625.6
113.05	menopausal and postmenopausal disorders	627
114	GENITAL PROLAPSE	618
PREGNANCY-RELATED CONDITIONS		
115	PREGNANCY/PERINATAL CONDITIONS	
115.01	pregnancy/birth complications, mother/child	630, 631, 640-648, 651-676, 760-779, V23, V31-V37
115.02	pregnancy with abortive outcome	632-639
115.03	normal pregnancy/delivery	650, V22, V24, V27, V28, V30, V39
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE		
116	DERMATOLOGICAL DISORDERS	
116.01	cellulitis/abscess/other local skin infection	681-683, 686
116.02	bullous dermatoses	694
117	CHRONIC ULCER OF SKIN	707
118	OTHER DEMATOLOGICAL DISORDERS	
118.01	dermatitis due to substances taken internally (e.g., food, drugs)	693
118.02	psoriasis and similar disorders	696
118.03	other dermatosis	702
118.04	diseases of nail (e.g., ingrown toenail)	703
118.05	other dermatological disorders	680, 684, 685, 690-692, 695, 697, 698, 700, 701, 704-706, 708, 709
CONGENITAL ANOMALIES		
119	CONGENITAL ANOMALIES	
119.01	spina bifida, other congenital anomalies of nervous system	740-742
119.02	congenital anomalies of eye	743
119.03	congenital anomalies of cardiac/circulatory systems	745-747
119.04	congenital anomalies of musculoskeletal/limb	754-756
119.05	congenital anomalies of skin	757
119.06	Down's syndrome and other chromosomal anomalies	758
119.07	other congenital anomalies	744, 748-753, 759

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER	DX GROUP LABEL	ICD-9-CM CODES
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS		
120	GENERAL SYMPTOMS	
120.01	somatic/segmental dysfunction	739
120.02	dizziness and giddiness	780.4
120.03	malaise and fatigue	780.7
120.04	other general symptoms	347, 780, 780.5, 780.8, 780.9, 782, 783, 785.6, 790, 792-796, 799, 799.2, 799.3, 799.8, 799.9
121	COMA/ SYNCOPE	
121.01	coma	780.0, 850.3, 850.4
121.02	syncope (fainting) and collapse	780.2
122	FEVER	780.6
123	RESPIRATORY/OTHER CHEST SYMPTOMS	
123.01	dyspnea (labored breathing)/other respiratory abnormalities	786.0
123.02	hemoptysis (coughing up blood)	786.3
123.03	cough	786.2
123.04	respiratory/other chest symptoms	784, 784.1, 784.2, 784.4-784.9, 786, 786.1, 786.4, 786.6-786.9
124	CARDIOVASCULAR SYMPTOMS	
124.01	chest pain	786.5
124.02	other cardiovascular symptoms	785, 785.0-785.3, 785.9
125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	
125.01	retention of urine	788.2
125.02	incontinence/urethral discharge	788.3, 788.7
125.03	other urinary system symptoms	788, 788.0, 788.1, 788.4-788.6, 788.8, 788.9, 791
125.04	abdominal/pelvis symptoms	789
INJURY AND POISONING		
126	VERTEBRAL INJURY	
126.01	vertebral fracture without spinal cord injury	805
126.02	vertebral fracture with spinal cord injury	806
127	FRACTURES OF SKULL/FACE/NASAL BONE	
127.01	fractures of skull/face	800-802, 802.2-802.9, 803, 804
127.02	fractures of nasal bone	802.0, 802.1
128	PELVIC FRACTURE	808
129	FEMORAL FRACTURE	820, 821
130	LOWER LIMB FRACTURES (E.G., LEG, ANKLE, FOOT)	822-825, 827, 828

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
131		FRACTURE/DISLOCATION	
	131.01	shoulder dislocation	831
	131.02	dislocation of hip	835
	131.03	dislocation of knee, including cartilage/meniscus tear	836
	131.04	other dislocations	830, 832-834, 837-839
	131.05	fracture of rib, closed	807.0
	131.06	hand/wrist/lower arm fracture	813-817
	131.07	other fractures	807, 807.1-807.6, 809-812, 818, 819, 826, 829
132		INTERNAL AND/OR OPEN WOUND	
	132.01	foreign body in pharynx/larynx	933-939
	132.02	injury to heart/lung/intrathoracic organs/blood vessels of thorax	860-862, 901
	132.03	gastrointestinal/liver/kidney/spleen/pelvis injury	863-869, 902
	132.04	open wound of eye	870, 871
	132.05	open wound/injury of lower arm	881-883, 885, 886, 913-915, 959.3-959.5
	132.06	open wound of other sites	872-880, 884, 890-894, 900, 903, 904
	132.07	traumatic amputation of leg/hand/foot/toe	887, 895, 896, 897
	132.08	crushing injury	925-929
	132.09	foreign body in eye/ear/nose	930-932
133		SPRAINS	840-848
134		CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	
	134.01	concussion	850, 850.0-850.2, 850.5, 850.9
	134.02	contusion/superficial injury	910-912, 916-924, 959, 959.0-959.2, 959.6-959.9
	134.03	accidental falls	E88, E880-E888
	134.04	attempted suicide/self-inflicted injury	E95, E950-E959
	134.05	other accidents	E80-E84, E800-E848, E89-E92, E890-E928, E96-E99, E960-E999
135		INTRACRANIAL (HEAD) INJURY	851-854
136		BURNS/NERVE, SPINAL CORD INJURES	
	136.01	third degree burns	940.3, 940.4, 941.3-941.5, 942.3-942.5, 943.3-943.5, 944.3-944.5, 945.3-945.5, 946.3-946.5, 949.3, 949.5
	136.02	other burns	940, 940.0-940.2, 940.9, 941, 941.0-941.2, 942, 942.0-942.2, 943, 943.0-943.2, 944, 944.0-944.2, 945, 945.0-945.2, 946, 946.0-946.2, 947-949, 949.0-949.2
	136.03	nerve injury (including spinal cord injury without spinal bone injury)	950-957
	136.04	early complications of trauma	958
137		POISONING/TOXIC EFFECTS	
	137.01	accidental poisoning by prescription or over-the-counter medications/biological substances including medication errors	960-979, E85, E850-E858
	137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	980-988, 990-995, 995.0, 995.1, 995.4, 995.8, 995.89, E86, E860-E869
	137.03	poisoning by other nonmedicinal substances	989
	137.04	allergy, unspecified	995.3
	137.05	adverse effects of correctly prescribed and administered drugs in therapeutic use	995.2, E93, E94, E930-E949

TABLE B-1

DXGROUP DIAGNOSTIC CATEGORIES WITH ICD-9-CM CODES

DX GROUP NUMBER		DX GROUP LABEL	ICD-9-CM CODES
138		COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	
	138.01	malfunction of internal orthopedic device/graft	996.4
	138.02	infection/inflammation due to internal device/graft, transplant failure/rejection	996.6, 996.8
	138.03	other complications of certain specified medical procedures	996, 996.0-996.3, 996.5, 996.7-996.9
	138.04	other complications of medical and surgical procedures, nec (e.g., post-operative infection)	997-999
	138.05	misadventure or abnormal reaction/complication of patient during surgery on medical care	E87, E870-E876, E878-E879
FACTORS INFLUENCING HEALTH STATUS/CONTACT WITH HEALTH SERVICES (V-CODE)			
139		ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	
	139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	V42.0, V42.1, V42.2, V42.6, V42.7
	139.02	other organ transplant	V42, V42.3- V42.5, V42.8, V42.9
	139.03	heart, heart valve replacement by artificial device	V43.2, V43.3
	139.04	joint replacement	V43.6
	139.05	other organ replacement	V43, V43.0, V43.4, V43.5, V43.7, V43.8
	139.06	artificial opening status/attention	V44, V55, 569.6
	139.07	postsurgical states, eye	V45.4
	139.08	other postsurgical states, including dialysis status	V45, V45.0-V45.3, V45.5, V45.6, V45.8, V45.81, V45.89
	139.09	aspirator, respirator, other machine dependence	V46, V46.0, V46.1, V46.8, V46.9
140		REHABILITATION PROCEDURES	V57
141		RADIATION THERAPY	V58.0, V67.1
142		CHEMOTHERAPY	V58.1, V67.2
143		HISTORY OF DISEASE/AFTERCARE/SCREENING	
	143.01	infectious disease contact/carrier	V01, V02
	143.02	vaccination, medical exam, other preventive	V03-V07, V20, V21, V25, V26, V29, V70
	143.03	history of malignant neoplasm	V10
	143.04	history of mental disorder/other disease	V11-V13
	143.05	history of drug allergy/other health hazard	V14, V15
	143.06	family history of disease	V16-V19
	143.07	problems of internal organs/external sites	V41, V47-V49
	143.08	elective surgery	V50, V51
	143.09	prothesis/other device fitting, adjustment	V52, V53
	143.10	other orthopedic aftercare	V54
	143.11	aftercare	V58, V58.2-V58.5, V58.8, V58.9, V66
	143.12	donor	V59
	143.13	household/family/other psychosocial circumstances	V60, V61, V62
	143.14	care not delivered	V63, V64
	143.15	administrative/consultation	V65, V68
	143.16	screening for malignant neoplasm	V76
	143.17	screening/observation/special exams	V67, V67.0, V67.3-V67.6, V67.9, V71-V75, V77-V82

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
--	ENTIRE 2.5% MODEL DEVELOPMENT SAMPLE	680,188	$3,783	$13	273
-1	DIAG CODE NOT VALID	6	16,077	-	-
-1.0	diag code not valid	5,889	6,753	-	-
0	NO INPATIENT CLAIMS IN DATA	554,125	2,869	12	299
0.0	no claims in any data	74,931	1,334	26	430
INFECTIOUS AND PARASITIC DISEASES					
1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS)	110	8,322	1,190	150
1.01	central nervous system infection (e.g., meningitis)	1,821	8,028	379	202
2	SEPTICEMIA/SHOCK	1,921	12,888	498	169
2.01	septicemia/shock	6,722	14,327	389	223
3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	26	25,697	9,715	193
3.01	HIV/AIDS (including pneumocytosis)	450	11,731	1,316	238
4	OTHER INFECTIOUS AND PARASITIC DISEASES	1,401	9,230	486	197
4.01	bacterial enteritis (intestinal infections)	1,103	9,328	606	216
4.02	viral enteritis (intestinal infections)	2,264	6,031	291	229
4.03	other intestinal infections	2,224	6,780	305	212
4.04	tuberculosis	1,942	7,630	401	231
4.05	strep throat/scarlet fever	1,342	4,170	242	212
4.06	other bacterial infections	1,282	6,453	378	210
4.07	bacterial infection in other diseases	9,753	10,116	203	198
4.08	herpes zoster	6,965	4,703	147	260
4.09	herpes simplex	1,860	5,330	292	236
4.10	viral hepatitis	600	7,762	646	204
4.11	other viral infections	15,117	4,948	93	232
4.12	late syphilis, symptomatic	279	7,152	852	199
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	48,799	6,064	60	217
4.14	thrush	1,013	10,011	722	229
4.15	mycoses (fungal diseases), miscellaneous	3,732	7,318	256	214
4.16	other infections	8,696	6,271	162	240
LATE EFFECTS					
5	LATE EFFECTS	222	10,315	1,092	158
5.01	infection late effects	656	7,553	660	224
5.02	cerebrovascular disease late effects	9,109	8,790	170	185
5.03	injury late effects	1,644	7,407	384	210
MALIGNANT NEOPLASM					
6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	244	14,449	1,651	178
6.01	cancer of mouth/tongue	1,002	9,184	648	223
6.02	cancer of pharynx	612	12,411	1,091	218
6.03	cancer of larynx	961	8,787	543	192
6.04	other respiratory/intrathoracic cancer	437	8,397	752	187
7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	411	16,743	1,195	145
7.01	cancer of esophagus	386	15,691	1,574	197
7.02	cancer of stomach	738	11,057	871	214
7.03	cancer of small bowel	638	12,094	932	195
7.04	cancer of liver	594	14,962	872	142
7.05	cancer of pancreas	580	12,401	989	192
7.06	other cancer of digestive organs/peritoneum	537	9,171	752	190
8	COLON CANCER	1,231	9,198	434	166
8.01	colon cancer	5,954	7,735	198	197
9	RECTAL CANCER	473	9,950	807	176
9.01	rectal cancer	4,976	8,046	229	200
10	LUNG CANCER	778	15,080	707	131
10.01	lung cancer	4,840	12,170	295	168

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
MALIGNANT NEOPLASM (continued)					
11	BREAST CANCER	1,392	4,980	260	195
11.01	breast cancer	12,555	4,955	101	229
12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	398	19,911	1,416	142
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	2,867	9,359	322	184
12.02	multiple myeloma	962	10,797	551	158
12.03	lymphoid leukemia	1,390	9,024	448	185
12.04	myeloid leukemia	416	14,098	1,414	205
12.05	other leukemia	951	11,342	668	182
13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	389	7,965	801	198
13.01	cancer of uterus	1,730	5,690	311	227
13.02	cancer of cervix/female genital organs	1,337	6,368	407	234
14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	157	15,249	1,490	122
14.01	cancer of ovaries/placenta/uterine adnexia	1,018	9,543	534	179
15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	1,835	6,840	308	193
15.01	prostate cancer	13,344	6,670	118	205
15.02	cancer of testis/male genital organs	342	7,991	1,085	251
16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	880	10,768	548	151
16.01	cancer of bladder/kidney/urinary organs	5,562	7,731	210	203
17	NEOPLASM OF NERVOUS SYSTEM	237	9,675	1,054	168
17.01	cancer of the eye	313	5,555	646	206
17.02	cancer of the brain/nervous system/pituitary, pineal glands	2,057	9,917	417	191
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	1,604	6,842	337	197
18	OTHER CANCER	296	10,792	1,052	169
18.01	cancer of bone and articular cartilage	1,291	10,990	565	185
18.02	cancer of connective and other soft tissue	995	9,158	594	204
18.03	melanoma	1,410	5,572	343	231
18.04	skin cancer, except melanoma	25,950	4,785	72	241
18.05	thyroid/endocrine cancer	525	7,610	704	212
18.06	other/ill-defined site cancer	7,828	9,300	208	198
19	SECONDARY CANCERS	964	20,137	760	117
19.01	secondary cancer of lymph node	2,039	11,547	397	155
19.02	secondary cancer of respiratory and digestive systems	3,019	15,719	394	138
19.03	secondary cancer of other site	5,014	12,848	286	158
19.04	disseminated cancer	1,212	10,948	544	173
BENIGN NEOPLASM, CARCINOMA IN SITU					
20	BENIGN NEOPLASMS	854	5,431	605	325
20.01	benign neoplasm of digestive system	17,866	5,598	102	244
20.02	benign neoplasm of respiratory system	1,154	8,957	529	201
20.03	benign neoplasm of skin	18,708	4,107	75	249
20.04	benign neoplasm of breast/other breast disorders	78,655	3,312	32	271
20.05	benign neoplasm of urinary	832	7,729	669	250
20.06	benign neoplasm of eye	1,017	3,437	260	241
20.07	other benign neoplasms	12,639	5,269	119	254
21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	453	8,159	794	207
21.01	carcinoma in situ of digestive organs	1,562	9,413	467	196
21.02	carcinoma in situ of respiratory system	771	11,449	642	156
21.03	carcinoma in situ of other sites	5,252	6,697	197	213
21.04	neoplasm of uncertain behavior, specified sites	5,671	7,747	216	210
21.05	neoplasm of uncertain behavior nec/nos	12,885	5,101	109	242
21.06	unspecified neoplasm	21,666	7,043	103	216

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES					
22	DIABETES WITHOUT COMPLICATIONS	373	12,327	1,279	200
22.01	diabetes without complications	86,686	6,316	48	225
23	DIABETES WITH ACUTE COMPLICATIONS	279	13,620	1,291	158
23.01	diabetes with acute complications	2,817	9,163	337	195
24	DIABETES WITH CHRONIC COMPLICATIONS	2,015	13,161	462	158
24.01	diabetes with renal manifestation	1,223	13,609	645	166
24.02	diabetes with other specified complications	8,944	10,583	204	182
24.03	diabetes with unspecified complications	14,894	9,266	148	195
25	HYPOGLYCEMIA	402	12,824	1,065	167
25.01	hypoglycemic coma	596	12,193	958	192
25.02	other hypoglycemia	3,767	8,451	301	219
26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	3,154	11,651	350	169
26.01	disorders of fluid/electrolyte/acid-base balance	41,958	9,094	89	199
27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	694	9,967	838	221
27.01	goiter	3,968	4,701	208	279
27.02	thyrotoxicosis	5,428	4,758	155	240
27.03	thyroid disorders	34,363	4,676	59	233
27.04	adrenal gland disorders	1,376	9,618	476	184
27.05	ovarian dysfunction	1,650	3,314	227	278
27.06	testicular dysfunction	482	5,672	625	242
27.07	other endocrine disorders	2,608	4,603	207	230
27.08	miscellaneous endocrine disorders	2,352	7,001	358	248
27.09	protein-calorie malnutrition	4,232	14,210	439	201
27.10	vitamin/other nutritional deficiencies	5,110	5,995	200	239
27.11	disorders of lipoid metabolism (high cholesterol)	89,015	3,646	32	259
27.12	disorders of plasma protein metabolism	1,342	9,365	543	212
27.13	disorders of mineral metabolism	3,345	7,498	286	220
27.14	cystic fibrosis, metabolism disorders, nec/nos	1,997	5,491	293	238
27.15	other hyperalimentation	435	5,894	611	216
27.16	obesity/localized adiposity	7,210	5,456	142	222
GASTROINTESTINAL DISORDERS					
28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	824	10,023	671	192
28.01	acute pancreatitis	2,472	8,774	369	209
28.02	chronic pancreatitis/other pancreatic diseases	2,517	9,760	416	214
29	END STAGE LIVER DISORDERS	136	20,886	2,961	165
29.01	end stage liver disorders	731	15,783	1,284	220
29.02	esophageal varices	419	15,269	1,636	219
30	OTHER LIVER DISORDERS	339	13,812	1,541	205
30.01	cirrhosis	2,082	11,305	529	213
30.02	other liver disorders	7,019	7,723	211	228
31	DISEASES OF ESOPHAGUS	1,109	8,588	436	169
31.01	disease of esophagus	23,294	6,274	98	239
32	ULCERS	2,129	7,966	348	202
32.01	ulcer without perforation	19,380	6,479	108	232
32.02	ulcer with perforation	851	8,389	724	252
33	GASTRITIS/OTHER GASTRIC DISORDERS	1,861	10,516	456	187
33.01	pyloric/duodenal obstruction	634	10,497	892	214
33.02	gastritis/other gastric disorder (stomach disorders)	78,354	6,344	50	221
34	APPENDICITIS	335	5,579	801	263
34.01	appendicitis	881	7,219	565	232
35	ABDOMINAL HERNIA/ COMPLICATED	467	5,679	520	191
35.01	abdominal hernia, complicated	1,667	6,603	357	221

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
GASTROINTESTINAL DISORDERS (continued)					
36	ABDOMINAL HERNIA/ UNCOMPLICATED	1,609	6,426	327	204
36.01	abdominal hernia/uncomplicated	27,730	5,664	77	227
37	REGIONAL ENTERITIS	207	10,863	1,591	211
37.01	regional enteritis (Crohn's disease)	1,318	8,058	519	234
37.02	ulcerative colitis	1,424	6,953	431	234
38	PERITONITIS/INTESTINAL OBSTRUCTION	2,248	9,824	408	197
38.01	intestinal obstruction	11,083	9,762	200	216
38.02	peritonitis	909	12,575	1,079	259
38.03	other peritoneal disorders	1,346	8,105	479	217
39	DIVERTICULA OF INTESTINE	1,990	7,357	293	177
39.01	diverculа of intestine	32,651	5,351	70	236
40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	1,894	9,065	374	180
40.01	hemorrhoids	16,383	4,608	94	262
40.02	anal/rectal disorders	20,330	5,528	99	256
40.03	intestinal abcess/ulceration/perforation	2,956	8,428	364	247
40.04	other intestinal disorders	25,879	6,487	90	224
41	GALLBLADDER DISORDERS	3,923	5,769	217	236
41.01	cholelithiasis (gallstones)	8,164	6,652	155	212
41.02	biliary tract disease	1,535	9,707	560	226
41.03	other gallbladder disorders	10,619	6,728	153	234
42	GASTROINTESTINAL HEMORRHAGE	1,686	10,781	516	196
42.01	gastrointestinal hemorrhage	22,399	7,470	122	244
DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE					
43	GOUT/ARTHROPATHY/DERANGEMENTS	555	7,868	531	159
43.01	gout/crystal arthropathy	11,996	5,451	113	227
43.02	other arthropathy/joint disorders, derangements	99,251	5,528	40	228
44	CONNECTIVE TISSUE DISEASES	583	10,054	624	150
44.01	systemic lupus erythematosus and other connective tissue disease	4,900	6,757	240	248
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	13,589	6,185	114	215
44.03	inflammatory spondylopathies	1,926	5,888	292	218
44.04	polymyalgia rheumatica	3,313	5,235	194	213
45	ARTHROPATHY/BONE INFECTION	434	12,511	966	161
45.01	arthropathy with infection	1,164	8,128	533	224
45.02	osteomyelitis	3,340	9,854	319	187
46	OSTEOARTHRITIS	3,751	5,431	166	187
46.01	osteoarthrosis	105,463	5,086	36	228
47	BACK PAIN	2,841	7,317	243	177
47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	90,991	5,317	40	224
48	DISORDERS OF SOFT TISSUES	667	8,393	679	209
48.01	disorders of soft tissue	97,065	5,327	40	233
49	OTHER BONE DISORDERS	1,520	9,539	423	173
49.01	osteoporosis	16,184	6,525	106	207
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	18,957	6,558	100	209
49.03	flat foot, acquired deformities of toe	13,798	5,134	100	228
49.04	other acquired limb deformities	3,484	6,803	226	196

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF BLOOD AND BLOOD-FORMING ORGANS					
50	ANEMIA	794	12,148	661	153
50.01	iron deficiency and other anemias	59,047	7,128	63	215
51	OTHER BLOOD DISEASES	642	16,494	1,225	188
51.01	sickle cell and other hereditary hemolytic anemias	850	7,973	685	251
51.02	acquired hemolytic anemia	464	11,101	955	185
51.03	aplastic anemia	1,480	14,799	657	171
51.04	hemophilia and other coagulation defects	5,197	8,104	250	223
51.05	purpura/thrombocytopathy/hemorrhagic conditions	3,071	9,851	396	223
51.06	white blood cell disorders	3,958	9,972	334	211
51.07	immune disorders	715	8,729	763	234
51.08	other blood disease	5,736	7,616	198	197
MENTAL DISORDERS					
52	DEMENTIA	1,238	8,760	413	166
52.01	senile/presenile psychoses	14,494	7,293	120	198
52.02	other organic psychotic conditions	2,515	8,124	332	205
52.03	cerebral degeneration:Alzheimer's disease	12,191	7,526	136	200
52.04	senility without psychosis	1,269	5,755	313	193
53	SUBSTANCE-RELATED PSYCHOSES	306	11,246	1,149	179
53.01	alcoholic psychoses	1,062	9,516	546	187
53.02	drug psychoses	842	9,984	619	180
54	DELIRIUM/HALLUCINATIONS	380	9,184	640	136
54.01	delirium/delusions/hallucinations	3,755	9,784	294	184
54.02	hallucinations, symptomatic	605	7,848	501	157
55	SCHIZOPHRENIC DISORDERS	1,654	9,216	320	141
55.01	schizophrenic disorders	8,113	5,991	137	207
56	MANIC AND DEPRESSIVE DISORDERS	2,399	11,218	365	159
56.01	manic and depressive disorders	11,916	7,840	144	200
57	PARANOIA AND OTHER PSYCHOSES	590	9,178	653	173
57.01	paranoid states	719	7,456	482	173
57.02	other nonorganic psychoses	11,695	7,763	138	193
58	NEUROTIC DISORDERS	406	9,306	690	149
58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	25,304	5,943	78	210
59	SUBSTANCE ABUSE AND DEPENDENCE	887	9,622	548	170
59.01	alcohol dependence	3,115	8,458	310	205
59.02	drug dependence	848	9,945	528	155
59.03	non-dependent abuse of drugs	4,129	7,657	231	194
60	OTHER MENTAL DISORDERS	802	10,320	598	164
60.01	personality disorders	1,896	8,283	355	187
60.02	sexual deviations and disorders	1,361	4,598	279	224
60.03	psychophysiologic disorders	946	6,054	408	208
60.04	acute reaction to stress	1,399	5,774	291	188
60.05	adjustment reaction	3,729	7,612	270	217
60.06	nonpsychotic organic brain syndrome	7,682	7,475	175	205
60.07	depression, not elsewhere classified	11,894	7,005	126	196
60.08	behavior disorder	680	5,370	569	276
60.09	developmental behavioral disorders	835	6,686	493	213
60.10	mental retardation	3,531	3,205	173	320
60.11	other mental disorders	1,857	6,334	290	197

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
NEUROLOGICAL DISORDERS					
61	HEADACHES	179	8,110	883	146
61.01	headaches, including migraine	24,655	5,689	84	231
62	DEGENERATIVE NEUROLOGIC DISORDERS	418	10,595	845	163
62.01	Parkinson's disease	8,048	7,012	151	193
62.02	Huntington's Disease, other abnormal movement disorders	3,112	6,076	236	216
62.03	anterior horn cell disease	395	9,162	1,295	281
62.04	other spinal cord disease	1,096	8,258	538	216
62.05	autonomic nerve disorder	1,305	9,392	470	181
62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	647	8,555	613	182
63	OTHER NEUROLOGIC DISORDERS	479	11,376	892	172
63.01	multiple sclerosis, other central nervous system dymelination	1,584	6,785	335	197
63.02	infantile cerebral palsy	958	4,516	355	243
63.03	quadriplegia	648	11,953	859	183
63.04	paraplegia	750	12,351	812	180
63.05	cauda equina syndrome	3,217	9,550	306	182
63.06	other paralytic disorders	1,179	9,894	493	171
63.07	nervous/musculoskeletal system symptoms	8,377	7,710	164	195
63.08	other central nervous system disorders	1,208	8,845	455	179
64	EPILEPSY AND OTHER SEIZURE DISORDERS	1,196	10,031	501	173
64.01	epilepsy and other seizure disorders	14,186	7,010	133	226
65	MONONEUROPATHY	202	10,056	1,264	179
65.01	trigeminal nerve disorder	1,299	5,026	251	180
65.02	facial nerve disorders	1,408	5,956	351	221
65.03	root/plexus disorders	587	5,503	432	190
65.04	root/plexus lesions	648	5,474	434	202
65.05	other cranial nerve disorders	339	6,433	648	186
65.06	neuropathy of upper limb (e g , carpal tunnel syndrome)	6,464	5,336	150	226
65.07	neuropathy of leg	6,283	6,218	166	212
66	POLYNEUROPATHY	146	16,282	2,199	163
66.01	peripheral neuropathy	4,767	7,716	218	195
66.02	inflammatory/toxic neuropathy	2,659	10,037	340	175
66.03	myoneural disorders/myasthenia gravis	559	7,818	624	189
66.04	muscular dystrophies	745	10,277	795	211
66.05	other neuropathy	883	6,188	442	212
67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE, OTHER BRAIN CONDITIONS	123	11,554	1,469	141
67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	4,570	10,376	352	229
CIRCULATORY DISORDERS					
68	VALVULAR AND RHEUMATIC HEART DISEASE	762	7,471	465	172
68.01	rheumatic fever/heart disease	3,439	9,123	336	216
68.02	mitral or aortic valve/endocardia disease	27,114	7,650	102	219
68.03	mitral/aortic valve disorders	5,545	8,819	244	206
69	HYPERTENSION, UNCOMPLICATED	1,173	11,102	517	159
69.01	essential hypertension	228,968	4,592	24	250
69.02	hypertensive heart disease	24,903	6,159	91	232
70	HYPERTENSION, COMPLICATED	668	10,591	737	180
70.01	malignant hypertension	17,840	5,231	96	244
70.02	malignant hypertensive heart disease	2,676	6,121	290	245
70.03	hypertensive heart and renal disease	3,049	10,309	433	232
70.04	secondary hypertension	565	7,682	922	285
70.05	hypertension encephalopathy	988	7,539	440	184
71	MYOCARDIAL INFARCTION	3,883	7,538	252	208
71.01	myocardial infarction	12,823	8,840	170	218
71.02	old myocardial infarction	10,199	7,827	161	207
71.03	other chronic ischemic heart disease	115,919	6,482	42	220

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER case LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS (continued)					
72	ACUTE MYOCARDIAL INFARCTION (HEART ATTACK)	4,501	9,014	286	213
72.01	acute myocardial infarction (heart attack)	6,367	9,690	255	210
73	OTHER ACUTE ISCHEMIA	6,895	9,277	210	188
73.01	other acute ischemia	19,598	8,592	125	204
74	ANGINA PECTORIS	2,121	8,932	307	158
74.01	angina pectoris	42,156	7,103	74	213
75	PULMONARY HEART DISEASE	595	10,744	769	175
75.01	pulmonary embolism (blood clot)	2,696	10,459	451	224
75.02	other pulmonary heart disease	5,209	9,890	290	212
76	RHYTHM AND CONDUCTION DISORDERS	2,869	7,875	277	188
76.01	conduction disorders/cardiac dysrhythmias	61,115	6,795	62	226
76.02	premature heart beats	12,935	6,623	134	231
77	ATRIAL ARRYTHMIA	3,013	8,033	259	177
77.01	atrial arrhythmia	35,037	7,608	86	213
78	VENTRICULAR TACHYCARDIA	448	11,652	1,050	191
78.01	ventric tachycardia	4,097	9,761	326	214
79	HEART ARREST/ SHOCK	77	11,178	1,883	148
79.01	heart arrest/shock	2,537	10,438	472	228
80	HEART FAILURE	7,600	13,902	257	161
80.01	heart failure	58,713	9,073	76	203
81	OTHER CARDIAC DISEASE	537	10,224	782	177
81.01	pericarditis, post-MI	2,259	8,413	356	201
81.02	acute endo/myocarditis	620	9,646	906	234
81.03	cardiomyopathy/myocarditis	9,072	9,468	194	195
81.04	cardiomegaly (enlarged heart)	19,595	8,797	127	202
81.05	other heart disease	13,961	7,568	140	218
82	CEREBRAL HEMORRHAGE	587	8,561	603	171
82.01	cerebral hemorrhage	3,057	8,958	357	220
83	PRECEREBRAL ARTERIAL OCCLUSION	1,423	7,639	392	194
83.01	precerebral arterial occlusion	14,926	7,282	119	199
84	CEREBROVASCULAR DISEASE	5,517	10,464	264	188
84.01	cerebrovascular accident (stroke)	34,267	8,153	93	211
84.02	hemiplegia (paralysis of one side of body)	5,844	9,973	250	191
84.03	aphasia (loss of language skills/comprehension)	1,734	9,541	489	213
85	TRANSIENT CEREBRAL ISCHEMIA	2,462	7,992	299	186
85.01	transient cerebral ischemia	17,453	7,186	111	204
86	ATHEROSCLEROSIS	749	11,115	612	151
86.01	atherosclerosis of major vessel	16,053	8,091	137	215
86.02	atherosclerosis/general, ascvd	39,122	6,683	75	222
87	ANEURYSM	820	7,745	690	255
87.01	aortic aneurysm	5,945	8,492	253	229
87.02	other aneurysm	1,695	8,770	500	234
88	ARTERIAL EMBOLISM AND THROMBOSIS	859	11,974	638	156
88.01	arterial embolism and thrombosis (blood clots)	5,550	10,285	280	203

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS (continued)					
89	PERIPHERAL VASCULAR DISEASE	867	12,235	817	197
89.01	specified peripheral vascular disease	2,725	8,899	349	205
89.02	Raynaud's syndrome	855	5,524	545	289
89.03	peripheral vascular disease	25,398	8,023	101	200
89.04	other arterial disease	6,261	8,574	236	217
89.05	disease of capillaries	851	4,772	389	238
89.06	vascular insufficiency of intestines	1,148	11,253	899	271
89.07	gangrene	2,374	13,632	529	189
90	THROMBOPHLEBITIS	1,426	9,395	457	184
90.01	phlebitis and thrombophlebitis	11,704	7,772	154	214
90.02	noninfectious lymphatic disorders	1,329	7,427	352	173
90.03	hemorrhage nos	984	8,445	492	183
90.04	compression of vein	703	8,572	665	206
91	HYPOTENSION (LOW BLOOD PRESSURE)	527	9,040	797	202
91.01	hypotension (low blood pressure)	6,203	8,469	218	203
92	OTHER CIRCULATORY DISEASE	461	10,167	729	154
92.01	superficial phlebitis-leg	1,674	6,757	365	221
92.02	varicose veins	8,613	6,535	159	226
92.03	other circulatory disease/postphlebitic syndrome	5,475	8,346	220	195
92.04	other specified circulatory disorders	6,652	7,479	182	199
DISORDERS OF THE EYE AND ADNEXA					
93	DISORDERS OF THE EYE AND ADNEXA	1,092	6,360	375	195
93.01	diabetic retinopathy	9,228	7,915	156	189
93.02	proliferative diabetic retinopathy	1,669	9,250	393	173
93.03	endophthalmitis (eye inflammation)	565	6,320	682	256
93.04	retinal disorders	50,148	4,827	50	233
93.05	glaucoma	52,719	4,324	46	246
93.06	cataract/lens replacement	169,161	4,312	26	248
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	25,026	3,609	62	270
93.08	vitreous hemorrhage	1,390	7,364	385	195
93.09	other eye disorders	116,990	4,534	33	248
DISORDERS OF THE EAR AND MASTOID PROCESS					
94	EAR DISORDERS	595	5,832	467	195
94.01	impacted earwax	26,546	4,433	66	241
94.02	otitis media (middle ear infection)	16,021	4,155	80	243
94.03	vertiginous syndromes	11,137	4,558	100	232
94.04	hearing loss	16,499	4,697	85	232
94.05	other ear disorders	19,259	4,612	81	244
DISEASES OF THE RESPIRATORY SYSTEM					
95	NOSE/ THROAT DISEASES	542	8,638	650	175
95.01	acute nose/throat infection	78,683	4,439	39	248
95.02	nasal polyps/allergic rhinitis	21,485	3,960	63	233
95.03	chronic sinusitis	19,925	4,520	81	252
95.04	larynx/vocal cord diseases	2,025	6,561	338	232
95.05	paralysis of vocal cords/larynx	467	12,032	1,143	205
95.06	disorders of teeth, gum, and jaw (e.g., periodontitis, gingivitis)	5,396	5,112	152	219
95.07	other diseases of upper respiratory system	10,983	5,072	121	249
95.08	salivary gland diseases	1,697	5,395	281	215
95.09	oral soft tissue/tongue/jaw disorders	4,388	5,936	243	271
96	EMPHYSEMA/CHRONIC BRONCHITIS	2,464	15,954	482	150
96.01	emphysema/chronic bronchitis	70,020	7,345	60	216
97	OTHER BRONCHITIS	2,639	11,284	378	172
97.01	other bronchitis	74,565	5,465	46	227

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF THE RESPIRATORY SYSTEM (continued)					
98	VIRAL PNEUMONIA/INFLUENZA	350	8,673	795	172
98.01	viral pneumonia	2,126	8,647	388	207
98.02	influenza	10,833	5,434	138	264
99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	1,324	14,070	622	161
99.01	gram-negative/staph pneumonia	2,433	14,837	581	193
100	BACTERIAL PNEUMONIA	7,162	10,251	225	185
100.01	pneumococcal and other specific bacterial pneumonia	3,175	10,384	389	211
100.02	other pneumonia	34,453	8,861	108	226
101	ASTHMA	1,621	12,261	484	159
101.01	asthma	20,952	6,887	104	219
102	LUNG DISEASES DUE TO EXTERNAL AGENTS	807	15,812	1,094	197
102.01	bronchiectasis, lung diseases due to specified external agent	2,836	7,252	292	215
102.02	aspiration pneumonia	1,863	16,157	859	229
102.03	respiratory conditions due to other external agents/postinflammatory fibrosis	6,206	7,923	235	233
103	PLEURISY/PNEUMOTHORAX	437	11,491	965	176
103.01	pleurisy/pneumothorax	13,535	10,550	192	212
104	OTHER LUNG DISEASE	497	14,257	1,227	192
104.01	empyema/abscess of lung	783	12,300	1,109	252
104.02	pulmonary congestion/hypostasis	9,741	9,529	203	210
104.03	acute lung edema nos	2,126	15,453	713	213
104.04	post trauma/surgery pulmonary insufficiency	1,125	14,905	1,358	305
104.05	other lung disease	23,837	8,720	133	236
105	RESPIRATORY FAILURE/ARREST	1,091	17,276	811	155
105.01	respiratory failure	16,794	11,238	203	235
105.02	respiratory arrest	2,333	19,696	1,043	256
DISEASES OF THE GENITOURINARY SYSTEM					
106	RENAL FAILURE	392	15,479	1,200	153
106.01	nephritis, dialysis encounter	2,200	11,310	518	215
106.02	acute renal failure	2,111	15,975	867	249
106.03	chronic renal failure	3,819	12,960	458	218
106.04	renal failure, unspecified	3,876	11,912	446	233
106.05	impaired renal function	1,130	9,045	540	201
107	KIDNEY INFECTION	633	9,735	682	176
107.01	kidney infection	4,023	7,432	234	199
108	RENAL/URETERAL/BLADDER CALCULUS	938	5,194	332	196
108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	7,094	6,247	167	226
109	OTHER RENAL/URETERAL DISEASES	350	10,320	931	169
109.01	urethral stricture	5,869	6,157	162	202
109.02	hydronephrosis/other renal/urethral disorders	13,346	8,689	159	211
110	OTHER URINARY TRACT INFECTIONS	3,002	12,456	366	161
110.01	cystitis, other urinary tract infections	81,604	6,251	48	221
111	OTHER URINARY DISORDERS	618	9,470	694	182
111.01	other urinary disorders	27,040	6,588	88	220
112	PROSTATE/TESTICULAR/PENILE DISORDERS	3,751	5,248	221	258
112.01	hyperplasia of prostate	41,057	4,941	59	243
112.02	other prostatic disorders	14,543	4,874	89	221
112.03	penis/testis/male genital organs disorders	8,048	5,395	156	260

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER case LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF THE GENITOURINARY SYSTEM (continued)					
113	DISEASES OF FEMALE GENITAL ORGANS	709	5,181	369	190
113.01	diseases of female pelvic organs	5,244	5,342	164	222
113.02	vaginal and cervical diseases	16,923	3,884	74	248
113.03	other diseases of female genital organs	9,692	5,182	112	213
113.04	female stress incontinence	3,495	5,024	162	190
113.05	menopausal and postmenopausal disorders	26,913	3,213	53	271
114	GENITAL PROLAPSE	1,117	3,033	214	236
114.01	genital prolapse	7,185	3,901	102	222
PREGNANCY-RELATED CONDITIONS					
115	PREGNANCY/PERINATAL CONDITIONS	129	3,671	496	154
115.01	pregnancy/birth complications, mother/child	4,148	6,791	249	237
115.02	pregnancy with abortive outcome	214	5,860	686	171
115.03	normal pregnancy/delivery	417	4,882	707	295
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE					
116	DERMATOLOGICAL DISORDERS	2,110	10,823	403	171
116.01	cellulitis/abscess/other local skin infection	40,048	6,846	75	218
116.02	bullous dermatoses	645	6,761	554	208
117	CHRONIC ULCER OF SKIN	869	16,123	731	134
117.01	chronic ulcer of skin	16,985	9,668	146	196
118	OTHER DEMATOLOGICAL DISORDERS	214	8,351	1,187	208
118.01	dermatitis due to internal agent	1,398	7,099	470	247
118.02	psoriasis and similar disorders	4,550	4,949	185	253
118.03	other dermatosis	43,223	3,980	47	245
118.04	diseases of nail	38,168	6,284	68	212
118.05	other dermatological disorders	86,073	4,588	39	250
CONGENITAL ANOMALIES					
119	CONGENITAL ANOMALIES	122	9,527	1,737	201
119.01	spina bifida, other congenital anomalies of nervous system	1,016	9,565	704	235
119.02	congenital anomalies of eye	2,208	4,474	241	253
119.03	congenital anomalies of cardiac/circulatory systems	7,535	7,933	213	233
119.04	congenital anomalies of musculoskeletal/limb	5,499	6,221	171	204
119.05	congenital anomalies of skin	2,807	4,580	193	223
119.06	chromosomal anomalies	706	2,951	371	334
119.07	other congenital anomalies	6,153	6,893	201	228
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS					
120	GENERAL SYMPTOMS	855	9,313	557	175
120.01	somatic/segmental dysfunction	11,597	4,066	86	229
120.02	dizziness and giddiness	32,061	5,489	66	216
120.03	malaise and fatigue	33,402	6,055	74	223
120.04	other general symptoms	115,779	6,037	42	235
121	COMA/ SYNCOPE	2,183	7,773	315	189
121.01	coma	2,371	10,430	438	204
121.02	syncope (fainting) and collapse	18,392	7,229	108	203
122	FEVER	342	12,400	1,232	184
122.01	fever	11,709	9,467	208	237
123	RESPIRATORY/OTHER CHEST SYMPTOMS	399	9,781	937	191
123.01	dyspnea (labored breathing)/other resp abnormalities	49,223	8,430	83	218
123.02	hemoptysis (coughing up blood)	2,255	9,446	426	214
123.03	cough	24,574	5,869	86	228
123.04	respiratory/other chest symptoms	27,303	7,585	101	220

TABLE B-3

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1991
HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS
(R^2 = 10.46%)

ADDXG	LABEL	ESTIMATE	T FOR H0: PARAMETER=0	PR > ITI	STD ERROR OF ESTIMATE
106.0	nephritis	1,555	6.87	0.0001	226
106.1	acute renal failure	1,910	7.72	0.0001	247
106.2	chronic renal failure	2,557	14.06	0.0001	182
106.3	renal failure nos	1,281	7.14	0.0001	179
106.4	impaired renal function	496	1.63	0.1032	304
107.0	kidney infection	-439	-2.70	0.0069	163
108.0	renal/ureteral calculus	73	0.59	0.5536	123
109.0	urethral stricture	229	1.71	0.0864	134
109.1	hydronephrosis/other renal/ure	440	4.65	0.0001	95
110.0	other urinary disorders/cystit	217	5.23	0.0001	42
111.0	other urinary disorders	278	4.10	0.0001	68
112.0	hyperplasia of prostate	-108	-1.85	0.0647	58
112.1	other prostatic disorders	-175	-1.96	0.0502	89
112.2	penis/testis/male gen disorder	98	0.86	0.3924	115
113.0	diseases of female pelvic orga	49	0.34	0.7312	144
113.1	vaginal and cervical diseases	-295	-3.69	0.0002	80
113.2	other diseases of female genit	152	1.43	0.1531	106
113.3	female stress incontinence	115	0.66	0.5087	174
113.4	menopausal disorders	-184	-2.82	0.0048	65
114.0	genital prolapse	41	0.34	0.7360	121
115.0	pregnancy/birth complications	585	3.72	0.0002	157
115.1	abortion	224	0.33	0.7431	682
115.2	normal pregnancy/delivery	-444	-0.90	0.3664	491
116.0	dermatological disorders	651	11.83	0.0001	55
116.1	bullous dermatoses	820	2.06	0.0396	399
117.0	chronic ulcer of skin	1,862	21.83	0.0001	85
118.0	dermatitis due to internal age	211	0.78	0.4354	270
118.1	psoriasis/like disorders	389	2.64	0.0082	147
118.2	other dermatosis	-29	-0.56	0.5781	53
118.3	diseases of nail	264	4.61	0.0001	57
118.4	other dermatological disorders	-92	-2.39	0.0167	38
119.0	congenital anomalies of nervou	1,725	5.38	0.0001	321
119.1	congenital anomalies of eye	17	0.08	0.9346	212
119.2	congenital anomalies of cardia	634	5.35	0.0001	118
119.3	congenital anomalies of muscul	383	2.81	0.0049	136
119.4	congenital anomalies of skin	-322	-1.70	0.0882	189
119.5	chromosomal anomalies	-833	-2.21	0.0270	377
119.6	other congenital anomalies	53	0.40	0.6860	130
120.0	somatic dysfunction	-141	-1.48	0.1384	95
120.1	dizziness and giddiness	26	0.43	0.6663	60
120.2	malaise and fatigue	75	1.29	0.1974	58
120.3	other general symptom	188	5.43	0.0001	35
121.0	coma	981	4.55	0.0001	216
121.1	syncope and collapse	227	2.88	0.0040	79
122.0	pyrexia	418	4.19	0.0001	100
123.0	dyspnea/other resp abnormaliti	833	16.03	0.0001	52
123.1	hemoptysis	1,156	5.29	0.0001	219
123.2	cough	-52	-0.78	0.4362	67
123.3	respiratory/other chest sympto	404	6.18	0.0001	65
124.0	chest pain	290	7.68	0.0001	38

TABLE B-3

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1991
HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS
(R^2 = 10.46%)

ADDXG	LABEL	ESTIMATE	T FOR H0: PARAMETER=0	PR > ITI	STD ERROR OF ESTIMATE
124.1	other cardiovascular symptoms	95	1.43	0.1536	67
125.0	retention of urine	60	0.52	0.6049	116
125.1	incontinence/urethral discharg	463	3.79	0.0001	122
125.2	other urinary system symptoms	-53	-0.72	0.4687	73
125.3	abdominal/pelvis symptoms	374	8.66	0.0001	43
126.0	vertebral fracture w/o spinal	461	3.14	0.0017	147
126.1	vertebral fracture with spinal	118	0.28	0.7767	415
127.0	fractures of skull/face	130	0.48	0.6299	269
127.1	fractures of nasal bone	-435	-1.22	0.2233	357
128.0	pelvic fracture	604	2.72	0.0066	222
129.0	femoral fracture	217	2.00	0.0454	109
130.0	fractures of lower limb	245	2.20	0.0281	111
131.0	shoulder dislocation	402	1.18	0.2368	340
131.1	dislocation of hip	641	1.26	0.2065	507
131.2	dislocation of knee	723	3.69	0.0002	196
131.3	other dislocations	-79	-1.00	0.3191	80
131.4	fracture of rib, closed	236	1.55	0.1202	152
131.5	hand/wrist/lower arm fracture	31	0.27	0.7841	114
131.6	other fractures	186	1.73	0.0836	108
132.0	foreign body in pharnyx/larnyx	-125	-0.54	0.5859	229
132.1	heart/lung/blood vessels injur	-1,058	-3.12	0.0018	340
132.2	gi/liver/kidney/spleen/pelvis	630	2.05	0.0404	307
132.3	open wound of eye	186	0.53	0.5991	354
132.4	open wound/injury of lower arm	-158	-1.79	0.0741	89
132.5	open wound of other sites	316	3.75	0.0002	84
132.6	amputation of limb/hand/foot/t	1,762	5.91	0.0001	298
132.7	crushing injury	-284	-0.69	0.4899	411
132.8	foreign body in eye/ear/nose	62	0.32	0.7520	195
133.0	sprains	114	2.10	0.0354	54
134.0	contusion, concussion, superfi	190	3.77	0.0002	50
134.1	accidental falls	308	2.63	0.0086	117
134.2	suicide/self-inflicted injury	2,539	3.95	0.0001	643
134.3	other accidents	34	0.26	0.7929	130
135.0	intracranial injury	12	0.08	0.9389	158
136.0	third degree burns	371	0.62	0.5348	597
136.1	other burns	818	3.59	0.0003	228
136.2	nerve injury	29	0.13	0.9004	230
136.3	early complications of trauma/	172	0.59	0.5575	293
137.0	poison effects	444	2.74	0.0062	162
137.1	toxic effects, named substance	426	2.15	0.0313	198
137.2	toxic effects of other nonmedi	-509	-2.38	0.0172	214
137.3	allergy, unspecified	114	0.79	0.4274	144
137.4	adverse effects of drugs in th	197	2.01	0.0444	98
138.0	malfunction of internal orthop	113	0.43	0.6694	264
138.1	infection/inflammation due to	3,697	13.48	0.0001	274
138.2	other complications of certain	1,380	9.99	0.0001	138
138.3	other complications of medical	-608	-7.06	0.0001	86
138.4	misadventure to patient in sur	-60	-0.20	0.8398	298
139.0	kidney/heart/lung/liver transp	349	0.71	0.4788	493
139.1	other organ transplant	-392	-1.03	0.3024	380

TABLE B-3

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1991
HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS
(R^2 = 10.46%)

ADDXG	LABEL	ESTIMATE	T FOR H0: PARAMETER=0	PR > ITI	STD ERROR OF ESTIMATE
139.2	heart/valve replacement	-320	-1.41	0.1593	227
139.3	joint replacement	494	3.33	0.0009	148
139.4	other organ replacement	553	1.12	0.2648	496
139.5	artificial opening status/atte	2,355	12.53	0.0001	188
139.6	postsurgical states, eye	1,020	1.72	0.0851	592
139.7	other postsurgical states	-146	-1.87	0.0617	78
139.8	machine dependence	6,411	8.52	0.0001	752
140.0	rehabilitation procedures	60	0.54	0.5887	111
141.0	radiotherapy	507	2.56	0.0106	198
142.0	chemotherapy	3,425	15.14	0.0001	226
143.0	infectious disease contact/car	-55	-0.14	0.8888	397
143.1	preventive	-237	-6.15	0.0001	39
143.2	history of malignant neoplasm	12	0.15	0.8790	82
143.3	history of mental dis/oth dise	-22	-0.17	0.8633	128
143.4	history of drug allergy/oth he	31	0.22	0.8236	141
143.5	family history of disease	-480	-3.17	0.0015	151
143.6	problems of int. organs/ext. s	211	0.76	0.4493	279
143.7	elective surgery	-804	-1.55	0.1217	520
143.8	prothesis/other device fitting	522	2.25	0.0242	232
143.10	aftercare	-291	-2.26	0.0240	129
143.11	donor	400	0.73	0.4627	544
143.12	hh/family/other pyschosocial c	-42	-0.10	0.9191	413
143.13	care not delivered	92	0.37	0.7129	249
143.14	administrative/consultation	188	1.08	0.2816	174
143.15	screening for malignant neopla	-286	-4.61	0.0001	62
143.16	screening/observation/special	88	3.02	0.0026	29

SOURCE: 1992 (Expenditures) and 1991 (diagnoses) Medicare claims

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS (continued)					
124	CARDIOVASCULAR SYMPTOMS	3,339	7,521	264	203
124.01	chest pain	106,981	6,611	46	227
124.02	other cardiovascular symptoms	24,782	6,258	95	240
125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	1,020	9,573	550	184
125.01	retention of urine	8,715	8,192	174	198
125.02	incontinence/urethral discharge	7,459	7,290	160	190
125.03	other urinary system symptoms	20,465	5,841	95	232
125.04	abdominal/pelvis symptoms	82,736	6,544	52	228
INJURY AND POISONING					
126	VERTEBRAL INJURY	663	8,888	603	175
126.01	vertebral fracture without spinal cord injury	5,279	7,699	211	199
126.02	vertebral fracture with spinal cord injury	613	8,857	704	197
127	FRACTURES OF SKULL/FACE/NASAL BONE	145	6,604	1,150	210
127.01	fractures of skull/face	1,451	7,265	456	239
127.02	fractures of nasal bone	802	5,885	405	195
128	PELVIC FRACTURE	550	6,791	532	184
128.01	pelvic fracture	2,199	8,069	331	193
129	FEMORAL FRACTURE	4,756	7,613	209	189
129.01	femoral fracture	10,354	7,616	144	193
130	LOWER LIMB FRACTURES	869	5,854	377	190
130.01	fractures of lower limb	8,349	5,620	139	226
131	FRACTURE/DISLOCATION	1,333	6,602	318	176
131.01	shoulder dislocation	874	6,017	513	252
131.02	dislocation of hip	425	8,860	871	203
131.03	dislocation of knee	2,585	5,258	232	225
131.04	other dislocations	16,995	4,005	78	252
131.05	fracture of rib, closed	4,584	6,786	199	198
131.06	hand/wrist/lower arm fracture	8,337	5,014	127	231
131.07	other fractures	9,458	6,170	137	216
132	INTERNAL AND/OR OPEN WOUND	679	6,709	474	184
132.01	foreign body in pharynx/larynx	1,988	7,946	366	206
132.02	heart/lung/blood vessels injury	914	7,020	519	223
132.03	gi/liver/kidney/spleen/pelvis injury	1,097	8,011	537	222
132.04	open wound of eye	802	5,715	476	236
132.05	open wound/injury of lower arm	13,882	4,742	100	250
132.06	open wound of other sites	15,802	6,302	118	235
132.07	traumatic amputation of limb/hand/foot/toe	1,280	12,166	678	199
132.08	crushing injury	588	5,069	437	209
132.09	foreign body in eye/ear/nose	2,579	4,565	205	228
133	SPRAINS	671	7,689	894	301
133.01	sprains	38,937	4,842	57	231
134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	595	6,968	473	165
134.01	concussion	1,258	6,562	363	196
134.02	contusion/superficial injury	50,392	5,861	59	225
134.03	accidental falls	8,586	6,779	147	201
134.04	suicide/self-inflicted injury	255	12,670	1,319	166
134.05	other accidents	6,364	5,400	162	240
135	INTRACRANIAL INJURY	347	6,857	846	230
135.01	intracranial injury	4,486	7,345	219	200
136	BURNS/NERVE, SPINAL CORD INJURES	186	8,819	1,077	167
136.01	third degree burns	293	7,494	937	214
136.02	other burns	2,007	6,380	319	224
136.03	nerve injury	1,908	6,864	298	189
136.04	early complications of trauma	1,205	8,746	504	200

TABLE B-2

1992 MEDICARE PROGRAM EXPENDITURES AND 1991 FREQUENCY OF ENROLLEES FOR PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN (ALL) DIAGNOSTIC GROUPS (LOWER case LABELS)

DXGROUP	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
INJURY AND POISONING (continued)					
137	POISONING/TOXIC EFFECTS	875	11,010	655	176
137.01	poisoning by prescription or over-the-counter medications	4,203	9,378	265	183
137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	2,600	7,049	368	266
137.03	poisoning by other nonmedicinal substances	2,149	3,526	211	278
137.04	allergy, unspecified	4,842	4,886	173	246
137.05	adverse effects of drugs in therapeutic use	11,376	7,683	143	198
138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	4,082	9,750	282	185
138.01	malfunction of internal orthopedic device/graft	1,635	7,805	344	178
138.02	infection/inflammation due to internal device/graft	1,509	15,357	803	203
138.03	other complications of certain specified medical procedures	6,035	10,398	269	201
138.04	other complications of medical and surgical procedures, nec, (e.g., post-operative infection)	16,277	8,268	146	225
138.05	misadventure to patient in surgery	1,184	8,421	543	222
FACTORS INFLUENCING HEALTH STATUS/CONTACT WITH HEALTH SERVICES (V-CODE)					
139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	559	10,441	802	182
139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	430	9,438	1,069	235
139.02	other organ transplant	681	5,254	447	222
139.03	heart, heart valve replacement by artificial device	2,107	7,380	325	202
139.04	joint replacement	5,015	6,680	180	191
139.05	other organ replacement	414	8,416	809	195
139.06	artificial opening status/attention	3,341	12,968	463	207
139.07	postsurgical states, eye	285	7,339	758	174
139.08	other postsurgical states, including dialysis status	19,067	7,296	112	212
139.09	aspirator, respirator, other machine dependence	204	22,463	5,438	346
140	REHABILITATION PROCEDURES	3,312	10,111	326	186
140.01	rehabilitation procedures	9,305	8,158	169	200
141	RADIOTHERAPY	116	11,885	1,602	145
141.01	radiation therapy	3,087	8,927	312	194
142	CHEMOTHERAPY	736	23,663	974	112
142.01	chemotherapy	2,552	14,076	404	145
143	HISTORY OF DISEASE/AFTERCARE/SCREENING	1,168	9,332	478	175
143.01	infectious disease contact/carrier	625	4,448	463	260
143.02	vaccination, medical exam, other preventive	77,117	3,828	35	251
143.03	history of malignant neoplasm	18,740	6,474	99	210
143.04	history of mental disorder/other disease	6,291	6,853	185	215
143.05	history of drug allergy/other health hazard	5,063	5,153	159	220
143.06	family history of disease	4,333	3,295	130	259
143.07	problems of internal organs/external sites	1,295	6,274	420	241
143.08	elective surgery	367	4,887	448	175
143.09	prothesis/other device fitting, adjustment	1,947	7,968	343	190
143.10	other orthopedic aftercare	2,413	6,047	252	205
143.11	aftercare	6,316	6,505	165	201
143.12	donor	332	6,433	1,296	367
143.13	household/family/other psychosocial circumstances	588	6,770	561	201
143.14	care not delivered	1,632	7,645	365	193
143.15	administrative/consultation	3,307	5,972	259	250
143.16	screening for malignant neoplasm	29,040	3,142	54	291
143.17	screening/observation/special exams	257,555	5,190	25	243

* Unweighted.
** Weighted by fraction of year beneficiary was alive and eligible for Medicare.

SOURCE: 1992 (expenditures) and 1991 (diagnoses) Medicare claims.

APPENDIX C:

DIAGNOSTIC COST GROUP SORTING ALGORITHM RESULTS

TABLE C-1

SORTING ALGORITHM OUTPUT FOR PRINCIPAL INPATIENT DCG MODEL

PIPDC^	PIPDXG	PIPDXG LABEL	FREQUENCY	MEAN
23	142	CHEMOTHERAPY	736	$23,663
17	29	END STAGE LIVER DISORDERS	136	20,886
17	12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	350	18,943
17	19	SECONDARY CANCERS	849	18,888
17	105	RESPIRATORY FAILURE/ARREST	1,087	17,231
14	7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	364	16,416
14	66	POLYNEUROPATHY	139	16,273
14	117	CHRONIC ULCER OF SKIN	859	15,963
14	102	LUNG DISEASES DUE TO EXTERNAL AGENTS	783	15,561
14	106	RENAL FAILURE	378	15,329
14	96	EMPHYSEMA/CHRONIC BRONCHITIS	2,292	15,300
14	51	OTHER BLOOD DISEASES	533	15,076
14	10	LUNG CANCER	669	14,197
14	104	OTHER LUNG DISEASE	475	14,087
12	80	HEART FAILURE	7,043	13,096
12	23	DIABETES WITH ACUTE COMPLICATIONS	270	13,087
12	24	DIABETES WITH CHRONIC COMPLICATIONS	1,909	12,866
12	99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	1,124	12,423
12	6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	204	12,337
12	25	HYPOGLYCEMIA	379	12,234
12	45	ARTHROPATHY/BONE INFECTION	393	12,234
12	14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	95	12,082
10	30	OTHER LIVER DISORDERS	276	11,253
10	2	SEPTICEMIA/SHOCK	1,559	11,117
10	141	RADIOTHERAPY	68	11,037
10	110	OTHER URINARY TRACT INFECTIONS	2,532	10,992
10	88	ARTERIAL EMBOLISM AND THROMBOSIS	743	10,977
10	67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE,	103	10,963
10	89	PERIPHERAL VASCULAR DISEASE	739	10,885
2	3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	10	10,678
10	122	FEVER	275	10,553
10	56	MANIC AND DEPRESSIVE DISORDERS	2,231	10,475
10	50	ANEMIA	655	10,320
10	78	VENTRICULAR TACHYCARDIA	371	10,257
10	63	OTHER NEUROLOGIC DISORDERS	417	10,101
10	101	ASTHMA	1,303	10,055
10	26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	2,613	10,006
8	84	CEREBROVASCULAR DISEASE	4,542	9,275
8	18	OTHER CANCER	221	9,266
8	16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	747	9,256
8	92	OTHER CIRCULATORY DISEASE	376	9,237
8	37	REGIONAL ENTERITIS	178	9,201
8	69	HYPERTENSION, UNCOMPLICATED	882	9,025
8	17	NEOPLASM OF NERVOUS SYSTEM	196	9,000
8	70	HYPERTENSION, COMPLICATED	540	8,947
8	44	CONNECTIVE TISSUE DISEASES	487	8,804
8	9	RECTAL CANCER	393	8,780
8	136	BURNS/NERVE, SPINAL CORD INJURES	161	8,761
8	116	DERMATOLOGICAL DISORDERS	1,600	8,673
8	97	OTHER BRONCHITIS	1,898	8,670
8	5	LATE EFFECTS	164	8,637
8	140	REHABILITATION PROCEDURES	2,647	8,636
8	86	ATHEROSCLEROSIS	527	8,627
8	53	SUBSTANCE-RELATED PSYCHOSES	243	8,506
8	54	DELIRIUM/HALLUCINATIONS	296	8,486
8	42	GASTROINTESTINAL HEMORRHAGE	1,277	8,474
8	8	COLON CANCER	1,078	8,442
8	65	MONONEUROPATHY	169	8,439
8	139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	443	8,329

TABLE C-1

SORTING ALGORITHM OUTPUT FOR PRINCIPAL INPATIENT DCG MODEL

PIPDCG	PIPDXG	PIPDXG LABEL	FREQUENCY	MEAN
8	38	PERITONITIS/INTESTINAL OBSTRUCTION	1,821	8,296
8	57	PARANOIA AND OTHER PSYCHOSES	446	8,252
8	109	OTHER RENAL/URETERAL DISEASES	267	8,236
8	64	EPILEPSY AND OTHER SEIZURE DISORDERS	954	8,186
8	28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	692	8,181
8	55	SCHIZOPHRENIC DISORDERS	1,383	8,132
8	33	GASTRITIS/OTHER GASTRIC DISORDERS	1,397	8,118
8	103	PLEURISY/PNEUMOTHORAX	307	8,069
8	62	DEGENERATIVE NEUROLOGIC DISORDERS	326	8,033
8	73	OTHER ACUTE ISCHEMIA	5,906	8,001
7	100	BACTERIAL PNEUMONIA	4,564	7,243
7	72	ACUTE MYOCARDIAL INFARCTION	3,074	7,243
7	52	DEMENTIA	733	7,204
7	107	KIDNEY INFECTION	437	7,159
7	49	OTHER BONE DISORDERS	1,015	7,100
7	126	VERTEBRAL INJURY	435	7,076
7	137	POISONING/TOXIC EFFECTS	503	7,072
7	125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	677	7,071
7	138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	2,604	7,061
7	60	OTHER MENTAL DISORDERS	447	7,014
6	75	PULMONARY HEART DISEASE	324	6,714
6	111	OTHER URINARY DISORDERS	414	6,688
6	143	HISTORY OF DISEASE/AFTERCARE/SCREENING	572	6,679
6	13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	301	6,675
6	87	ANEURYSM	594	6,635
6	120	GENERAL SYMPTOMS	493	6,492
6	82	CEREBRAL HEMORRHAGE	253	6,473
6	119	CONGENITAL ANOMALIES	80	6,438
6	91	HYPOTENSION (LOW BLOOD PRESSURE)	297	6,436
6	81	OTHER CARDIAC DISEASE	260	6,378
6	74	ANGINA PECTORIS	1,266	6,353
6	90	THROMBOPHLEBITIS	807	6,348
6	121	COMA/ SYNCOPE	1,531	6,335
6	85	TRANSIENT CEREBRAL ISCHEMIA	1,686	6,229
6	129	FEMORAL FRACTURE	2,858	6,173
6	83	PRECEREBRAL ARTERIAL OCCLUSION	993	6,125
6	68	VALVULAR AND RHEUMATIC HEART DISEASE	450	6,092
6	40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	1,192	6,087
6	77	ATRIAL ARRYTHMIA	2,024	6,023
6	31	DISEASES OF ESOPHAGUS	724	6,001
5	43	GOUT/ARTHROPATHY/DERANGEMENTS	313	5,855
5	98	VIRAL PNEUMONIA/INFLUENZA	226	5,775
5	15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	1,418	5,711
5	71	MYOCARDIAL INFARCTION	1,684	5,709
5	32	ULCERS	1,376	5,707
5	59	SUBSTANCE ABUSE AND DEPENDENCE	499	5,645
5	76	RHYTHM AND CONDUCTION DISORDERS	1,647	5,589
5	27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	373	5,518
5	39	DIVERTICULA OF INTESTINE	1,297	5,513
5	47	BACK PAIN	2,001	5,439
5	124	CARDIOVASCULAR SYMPTOMS	2,080	5,351
5	4	OTHER INFECTIOUS AND PARASITIC DISEASES	771	5,316
5	134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	361	5,274
5	118	OTHER HEMATOLOGICAL DISORDERS	115	5,267
5	21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	269	5,245
5	58	NEUROTIC DISORDERS	190	5,226
5	123	RESPIRATORY/OTHER CHEST SYMPTOMS	225	5,197
5	93	DISORDERS OF THE EYE AND ADNEXA	844	5,063
5	48	DISORDERS OF SOFT TISSUES	434	5,037

TABLE C-1

SORTING ALGORITHM OUTPUT FOR PRINCIPAL INPATIENT DCG MODEL

PIPDCG	PIPDXG	PIPDXG LABEL	FREQUENCY	MEAN
5	95	NOSE/ THROAT DISEASES	350	5,027
5	128	PELVIC FRACTURE	305	5,015
4	36	ABDOMINAL HERNIA/ UNCOMPLICATED	1,123	4,790
4	133	SPRAINS	446	4,738
4	135	INTRACRANIAL INJURY	160	4,722
4	61	HEADACHES	102	4,719
4	131	FRACTURE/DISLOCATION	809	4,539
4	35	ABDOMINAL HERNIA/ COMPLICATED	307	4,415
4	46	OSTEOARTHRITIS	2,454	4,352
2	79	HEART ARREST/ SHOCK	12	4,260
4	41	GALLBLADDER DISORDERS	2,623	4,244
4	34	APPENDICITIS	242	4,242
4	108	RENAL/URETERAL/BLADDER CALCULUS	683	4,222
4	11	BREAST CANCER	1,120	4,049
3	132	INTERNAL AND/OR OPEN WOUND	356	3,968
3	112	PROSTATE/TESTICULAR/PENILE DISORDERS	2,588	3,963
3	130	LOWER LIMB FRACTURES	576	3,886
3	20	BENIGN NEOPLASMS	586	3,802
2	22	DIABETES WITHOUT COMPLICATIONS	42	3,801
2	1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS)	43	3,775
3	113	DISEASES OF FEMALE GENITAL ORGANS	524	3,629
3	94	EAR DISORDERS	431	3,287
3	127	FRACTURES OF SKULL/FACE/NASAL BONE	82	3,119
2	0	NO INPATIENT CLAIMS	554,125	2,869
2	115	PREGNANCY/PERINATAL CONDITIONS	95	2,449
2	114	GENITAL PROLAPSE	911	2,434

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column.

SOURCE: 1992 (expenditures) and 1991 (diagnoses) Medicare claims.

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
17	139.09	aspirator, respirator, other machine dependence	204	$22,463
17	105.02	respiratory arrest	2,333	19,696
14	29.01	end stage liver disorders	716	15,714
14	19.02	secondary cancer of respiratory and digestive systems	2,964	15,540
14	29.02	esophageal varices	413	15,039
14	106.02	acute renal failure	1,957	14,860
14	7.01	cancer of esophagus	374	14,826
14	7.04	cancer of liver	589	14,799
14	51.03	aplastic anemia	1,462	14,771
14	138.02	infection/inflammation due to internal device/graft	1,456	14,568
14	102.02	aspiration pneumonia	1,679	14,327
14	104.03	acute lung edema nos	1,890	14,194
12	89.07	gangrene	2,084	12,222
10	99.01	gram-negative/staph pneumonia	1,804	11,593
10	134.04	suicide/self-inflicted injury	220	11,418
10	24.01	diabetes with renal manifestation	951	11,394
10	27.09	protein-calorie malnutrition	3,122	11,298
10	2.01	septicemia/shock	4,863	11,203
10	25.01	hypoglycemic coma	520	11,178
10	63.04	paraplegia	650	11,092
10	63.03	quadriplegia	558	10,880
10	19.03	secondary cancer of other site	3,683	10,716
10	6.02	cancer of pharynx	514	10,483
10	106.03	chronic renal failure	2,792	10,474
10	142.01	chemotherapy	1,688	10,377
10	3.01	HIV/AIDS (including pneumocytosis)	405	10,287
10	12.04	myeloid leukemia	339	10,200
10	10.01	lung cancer	3,649	10,199
10	51.02	acquired hemolytic anemia	380	10,152
10	7.05	cancer of pancreas	405	10,090
8	59.02	drug dependence	675	8,807
8	104.04	post trauma/surgery pulmonary insufficiency	572	8,683
8	104.01	empyema/abscess of lung	449	8,604
8	24.02	diabetes with other specified complications	6,715	8,483
8	66.04	muscular dystrophies	594	8,313
8	66.02	inflammatory/toxic neuropathy	2,085	8,254
8	84.03	aphasia (loss of language skills/comprehension)	1,294	8,251
8	53.02	drug psychoses	635	8,175
8	54.01	delirium/delusions/hallucinations	2,778	8,146
8	53.01	alcoholic psychoses	814	8,126
8	132.07	traumatic amputation of limb/hand/foot/toe	726	8,111
8	12.02	multiple myeloma	609	8,104
8	84.02	hemiplegia (paralysis of one side of body)	4,459	8,090
8	78.01	ventric tachycardia	3,199	8,037
7	75.02	other pulmonary heart disease	3,675	7,450
7	139.06	artificial opening status/attention	1,596	7,423
7	95.05	paralysis of vocal cords/larynx	285	7,421
7	105.01	respiratory failure	9,584	7,366
7	72.01	acute myocardial infarction	3,947	7,344
7	106.01	nephritis, dialysis encounter	1,057	7,268
7	106.04	renal failure, unspecified	1,722	7,262
7	68.03	mitral/aortic valve disorders	3,966	7,204
7	80.01	heart failure	42,021	7,118
7	89.06	vascular insufficiency of intestines	734	7,063
7	68.01	rheumatic fever/heart disease	2,523	7,041
7	7.03	cancer of small bowel	272	7,028
7	88.01	arterial embolism and thrombosis (blood clots)	3,477	7,017
6	126.02	vertebral fracture with spinal cord injury	307	6,267
6	131.02	dislocation of hip	242	6,250
6	62.05	autonomic nerve disorder	591	6,057

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
6	19.01	secondary cancer of lymph node	623	6,053
6	12.03	lymphoid leukemia	841	6,053
6	60.01	personality disorders	1,202	6,029
5	93.02	proliferative diabetic retinopathy	824	5,985
5	139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	138	5,949
5	121.01	coma	905	5,883
5	138.03	other complications of certain specified medical procedures	2,261	5,811
5	87.01	aortic aneurysm	3,106	5,800
5	30.01	cirrhosis	870	5,796
5	6.01	cancer of mouth/tongue	516	5,775
5	119.01	spina bifida, other congenital anomalies of nervous system	507	5,724
5	63.05	cauda equina syndrome	1,551	5,707
5	4.07	bacterial infection in other diseases	3,782	5,684
5	117.01	chronic ulcer of skin	8,263	5,680
5	54.02	hallucinations, symptomatic	294	5,617
5	138.01	malfunction of internal orthopedic device/graft	874	5,599
5	128.01	pelvic fracture	1,224	5,575
5	17.02	cancer of the brain/nervous system/pituitary, pineal glands	981	5,527
5	63.08	other central nervous system disorders	586	5,488
5	62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	365	5,457
5	5.02	cerebrovascular disease late effects	3,205	5,441
5	57.01	paranoid states	386	5,433
5	38.01	intestinal obstruction	4,780	5,433
5	19.04	disseminated cancer	462	5,411
5	56.01	manic and depressive disorders	7,233	5,400
5	18.01	cancer of bone and articular cartilage	467	5,397
5	62.03	anterior horn cell disease	209	5,392
5	73.01	other acute ischemia	8,182	5,385
5	89.03	peripheral vascular disease	13,486	5,383
5	28.02	chronic pancreatitis/other pancreatic diseases	1,269	5,366
5	62.01	Parkinson's disease	5,318	5,344
5	27.12	disorders of plasma protein metabolism	538	5,313
5	67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	1,796	5,313
5	7.02	cancer of stomach	281	5,288
5	129.01	femoral fracture	5,589	5,282
5	57.02	other nonorganic psychoses	5,698	5,281
5	82.01	cerebral hemorrhage	1,202	5,272
5	59.01	alcohol dependence	1,279	5,271
5	87.02	other aneurysm	760	5,253
5	12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	1,388	5,252
5	24.03	diabetes with unspecified complications	6,826	5,251
4	38.02	peritonitis	77	5,247
5	86.01	atherosclerosis of major vessel	8,125	5,246
5	84.01	cerebrovascular accident (stroke)	16,510	5,245
5	62.04	other spinal cord disease	582	5,223
5	71.01	myocardial infarction	3,920	5,221
5	27.04	adrenal gland disorders	668	5,209
5	139.07	postsurgical states, eye	186	5,194
5	92.03	other circulatory disease/postphlebitic syndrome	2,561	5,192
5	89.04	other arterial disease	2,915	5,187
5	17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	978	5,187
5	16.01	cancer of bladder/kidney/urinary organs	3,345	5,165
5	125.01	retention of urine	4,301	5,160
5	51.07	immune disorders	394	5,146
5	126.01	vertebral fracture without spinal cord injury	2,970	5,136
5	143.12	donor	221	5,136
5	143.09	prothesis/other device fitting, adjustment	914	5,136
5	139.04	joint replacement	3,291	5,134
5	52.01	senile/presenile psychoses	7,613	5,123
5	32.02	ulcer with perforation	456	5,120

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
5	38.03	other peritoneal disorders	657	5,112
5	136.01	third degree burns	177	5,108
5	137.01	poisoning by prescription or over-the-counter medications	1,667	5,102
5	93.01	diabetic retinopathy	5,302	5,090
5	100.01	specific bacterial pneumonia	992	5,086
5	26.01	disorders of fluid/electrolyte/acid-base balance	17,135	5,077
5	71.02	old myocardial infarction	4,554	5,070
5	89.01	specified peripheral vascular disease	1,264	5,053
5	132.03	gi/liver/kidney/spleen/pelvis injury	601	5,052
5	45.02	osteomyelitis	1,643	5,033
5	106.05	impaired renal function	511	5,028
5	52.03	cerebral degeneration/Alzheimer's disease	6,568	5,019
5	66.01	peripheral neuropathy	2,585	5,014
5	51.04	hemophilia and other coagulation defects	2,276	5,013
5	81.04	cardiomegaly (enlarged heart)	7,546	5,008
4	7.06	other cancer of digestive organs/peritoneum	119	4,704
4	21.01	carcinoma in situ of digestive organs	380	4,400
4	139.03	heart, heart valve replacement by artificial device	335	4,371
4	139.05	other organ replacement	93	4,292
4	14.01	cancer of ovaries/placenta/uterine adnexia	313	4,070
4	9.01	rectal cancer	1,496	4,054
4	123.02	hemoptysis (coughing up blood)	586	4,041
4	52.04	senility without psychosis	233	4,039
4	6.03	cancer of larynx	355	4,003
3	15.01	prostate cancer	5,246	3,964
3	116.02	bullous dermatoses	248	3,913
3	18.05	thyroid/endocrine cancer	181	3,877
3	74.01	angina pectoris	11,435	3,739
3	27.06	testicular dysfunction	224	3,735
3	81.01	pericarditis, post-MI	295	3,727
3	96.01	emphysema/chronic bronchitis	23,083	3,722
3	52.02	other organic psychotic conditions	325	3,711
3	15.02	cancer of testis/male genital organs	100	3,711
3	20.02	benign neoplasm of respiratory system	189	3,708
3	81.03	cardiomyopathy/myocarditis	1,310	3,708
3	37.01	regional enteritis (Crohn's disease)	475	3,684
3	63.06	other paralytic disorders	159	3,684
3	131.01	shoulder dislocation	398	3,656
3	44.02	rheumatoid arthritis and other inflammatory polyarthropathy	6,080	3,611
3	119.03	congenital anomalies of cardiac/circulatory systems	1,798	3,605
3	75.01	pulmonary embolism (blood clot)	330	3,548
3	123.01	dyspnea (labored breathing)/other resp abnormalities	11,922	3,531
3	134.01	concussion	334	3,530
3	34.01	appendicitis	198	3,512
3	77.01	atrial arrhythmia	7,546	3,511
3	51.05	purpura/thrombocytopathy/hemorrhagic conditions	731	3,506
3	109.02	hydronephrosis/other renal/urethral disorders	2,673	3,488
3	81.05	other heart disease	3,131	3,476
3	85.01	transient cerebral ischemia	3,022	3,475
3	98.01	viral pneumonia	422	3,469
3	71.03	other chronic ischemic heart disease	36,176	3,463
3	18.02	cancer of connective and other soft tissue	282	3,460
3	121.02	syncope (fainting) and collapse	4,266	3,458
3	40.03	intestinal abcess/ulceration/perforation	694	3,457
3	101.01	asthma	8,780	3,451
3	4.14	thrush	251	3,438
3	70.05	hypertension encephalopathy	184	3,435
3	115.02	pregnancy with abortive outcome	76	3,432
3	132.01	foreign body in pharynx/larynx	575	3,430
3	70.03	hypertensive heart and renal disease	500	3,425

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
3	135.01	intracranial injury	998	3,415
3	139.08	other postsurgical states, including dialysis status	3,881	3,410
3	44.01	systemic lupus erythematosus and other connective tissue disease	1,770	3,407
3	68.02	mitral or aortic valve/endocardia disease	6,180	3,401
3	83.01	precerebral arterial occlusion	2,693	3,398
3	70.02	malignant hypertensive heart disease	1,055	3,363
3	131.03	dislocation of knee	1,370	3,358
3	138.04	other complications of medical and surgical procedures, nec, (e.g., post-operative infection)	2,411	3,348
3	8.01	colon cancer	1,237	3,340
3	100.02	other pneumonia	7,183	3,336
3	4.04	tuberculosis	601	3,332
3	140.01	rehabilitation procedures	1,686	3,331
3	5.02	incontinence/urethral discharge	1,991	3,329
3	41.02	biliary tract disease	202	3,318
3	12.05	other leukemia	131	3,318
3	109.01	urethral stricture	2,076	3,311
3	95.04	larynx/vocal cord diseases	729	3,310
3	119.04	congenital anomalies of musculoskeletal/limb	2,109	3,309
3	55.01	schizophrenic disorders	3,635	3,306
3	21.04	neoplasm of uncertain behavior, specified sites	1,509	3,305
3	21.03	carcinoma in situ of other sites	1,950	3,300
3	35.01	abdominal hernia, complicated	429	3,299
3	60.07	depression, not elsewhere classified	3,182	3,297
3	13.02	cancer of cervix/female genital organs	582	3,293
3	27.15	other hyperalimentation	177	3,287
3	102.01	bronchiectasis, lung diseases due to specified external agent	896	3,285
3	104.05	other lung disease	5,094	3,281
3	63.01	multiple sclerosis, other central nervous system dymelination	548	3,270
3	51.08	other blood disease	1,723	3,270
3	92.01	superficial phlebitis-leg	523	3,268
3	131.05	fracture of rib, closed	1,483	3,255
3	41.01	cholelithiasis (gallstones)	2,236	3,254
3	118.04	diseases of nail	11,626	3,250
3	127.02	fractures of nasal bone	277	3,243
3	27.08	miscellaneous endocrine disorders	697	3,239
3	86.02	atherosclerosis/general, ascvd	10,424	3,232
3	60.06	nonpsychotic organic brain syndrome	961	3,230
3	49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	6,731	3,222
3	92.04	other specified circulatory disorders	1,686	3,208
3	16.06	other/ill-defined site cancer	1,807	3,206
3	76.01	conduction disorders/cardiac dysrhythmias	17,472	3,198
3	23.01	diabetes with acute complications	552	3,197
3	50.01	iron deficiency and other anemias	16,205	3,193
3	143.08	elective surgery	144	3,179
3	22.01	diabetes without complications	31,190	3,177
3	102.03	respiratory conditions due to other external agents/postinflammatory fibrosis	1,469	3,172
3	90.02	noninfectious lymphatic disorders	384	3,165
3	104.02	pulmonary congestion/hypostasis	1,848	3,161
3	111.01	other urinary disorders	8,802	3,159
3	103.01	pleurisy/pneumothorax	1,601	3,158
3	60.05	adjustment reaction	1,055	3,157
3	63.07	nervous/musculoskeletal system symptoms	1,767	3,152
3	91.01	hypotension (low blood pressure)	1,007	3,142
3	28.01	acute pancreatitis	388	3,138
3	4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	15,388	3,131
3	76.02	premature heart beats	3,592	3,129
3	51.06	white blood cell disorders	802	3,108
3	42.01	gastrointestinal hemorrhage	6,902	3,106
3	143.14	care not delivered	399	3,098
3	41.03	other gallbladder disorders	2,936	3,091

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
3	49.01	osteoporosis	5,120	3,091
3	116.01	cellulitis/abscess/other local skin infection	13,379	3,091
3	141.01	radiation therapy	732	3,087
3	37.02	ulcerative colitis	566	3,083
3	32.01	ulcer without perforation	6,733	3,066
3	122.01	fever	1,992	3,064
3	124.01	chest pain	34,317	3,055
3	46.01	osteoarthrosis	49,046	3,054
3	123.04	respiratory/other chest symptoms	7,715	3,051
3	125.04	abdominal/pelvis symptoms	29,947	3,047
3	40.04	other intestinal disorders	9,199	3,046
3	43.02	other arthropathy/joint disorders, derangements	43,593	3,041
3	95.08	salivary gland diseases	761	3,027
3	66.03	myoneural disorders/myasthenia gravis	189	3,018
3	30.02	other liver disorders	1,851	3,014
3	4.01	bacterial enteritis (intestinal infections)	178	3,003
2	60.02	sexual deviations and disorders	139	2,771
2	65.04	root/plexus lesions	79	2,681
1	65.05	other cranial nerve disorders	24	2,565
2	93.08	vitreous hemorrhage	130	2,475
2	60.11	other mental disorders	110	2,373
2	132.08	crushing injury	67	2,350
1	20.05	benign neoplasm of urinary	21	2,281
1	4.10	viral hepatitis	25	2,180
2	134.03	accidental falls	385	2,173
2	44.04	polymyalgia rheumatica	169	2,154
1	132.02	heart/lung/blood vessels injury	18	2,098
2	21.06	unspecified neoplasm	1,189	2,078
2	60.04	acute reaction to stress	103	2,071
2	119.05	congenital anomalies of skin	187	2,017
2	65.01	trigeminal nerve disorder	121	2,007
1	137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	157	1,939
1	112.02	other prostatic disorders	1,286	1,933
1	65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	437	1,900
1	136.02	other burns	203	1,885
1	127.01	fractures of skull/face	51	1,874
1	43.01	gout/crystal arthropathy	1,189	1,868
1	118.01	dermatitis due to internal agent	63	1,852
1	115.01	pregnancy/birth complications, mother/child	313	1,851
1	11.01	breast cancer	1,230	1,848
1	108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	339	1,828
1	112.01	hyperplasia of prostate	3,994	1,806
1	39.01	diverculа of intestine	1,570	1,797
1	33.02	gastritis/other gastric disorder (stomach disorders)	3,365	1,791
1	49.04	other acquired limb deformities	171	1,780
1	69.02	hypertensive heart disease	1,596	1,763
1	131.07	other fractures	551	1,763
1	18.04	skin cancer, except melanoma	3,608	1,758
1	64.01	epilepsy and other seizure disorders	1,381	1,744
1	113.04	female stress incontinence	196	1,743
1	93.04	retinal disorders	7,167	1,728
1	18.03	melanoma	126	1,725
1	143.03	history of malignant neoplasm	1,103	1,723
1	118.02	psoriasis and similar disorders	565	1,721
1	94.01	impacted earwax	3,749	1,713
1	95.07	other diseases of upper respiratory system	960	1,712
1	20.01	benign neoplasm of digestive system	1,031	1,704
1	21.05	neoplasm of uncertain behavior nec/nos	1,576	1,697
1	61.01	headaches, including migraine	1,732	1,695
1	124.02	other cardiovascular symptoms	924	1,688

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	115.03	normal pregnancy/delivery	45	1,688
1	36.01	abdominal hernia/uncomplicated	1,350	1,687
1	47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	7,065	1,677
1	110.01	cystitis, other urinary tract infections	4,794	1,676
1	132.04	open wound of eye	73	1,675
1	125.03	other urinary system symptoms	1,095	1,672
1	120.04	other general symptoms	7,038	1,672
1	27.10	vitamin/other nutritional deficiencies	210	1,669
1	70.01	malignant hypertension	1,844	1,662
1	93.05	glaucoma	9,082	1,658
1	120.03	malaise and fatigue	1,779	1,657
1	112.03	penis/testis/male genital organs disorders	730	1,656
1	94.05	other ear disorders	2,551	1,653
1	98.02	influenza	1,041	1,643
1	132.06	open wound of other sites	1,312	1,635
1	143.04	history of mental disorder/other disease	209	1,634
1	20.07	other benign neoplasms	1,074	1,633
1	59.03	non-dependent abuse of drugs	168	1,631
1	93.06	cataract/lens replacement	27,364	1,628
1	40.02	anal/rectal disorders	1,208	1,627
1	65.07	neuropathy of leg	328	1,625
1	4.09	herpes simplex	210	1,624
1	120.02	dizziness and giddiness	2,187	1,617
1	4.15	mycoses (fungal diseases), miscellaneous	167	1,604
1	132.05	open wound/injury of lower arm	1,727	1,603
1	97.01	other bronchitis	6,830	1,600
1	113.01	diseases of female pelvic organs	324	1,594
1	95.03	chronic sinusitis	2,157	1,593
1	94.04	hearing loss	1,942	1,592
1	137.05	adverse effects of drugs in therapeutic use	319	1,592
1	118.03	other dermatosis	6,718	1,585
1	131.06	hand/wrist/lower arm fracture	861	1,581
1	119.07	other congenital anomalies	241	1,574
1	31.01	disease of esophagus	1,086	1,574
1	123.03	cough	1,371	1,573
1	48.01	disorders of soft tissue	7,012	1,571
1	93.09	other eye disorders	17,426	1,570
1	4.05	strep throat/scarlet fever	158	1,570
1	40.01	hemorrhoids	1,402	1,570
1	132.09	foreign body in eye/ear/nose	413	1,568
1	134.02	contusion/superficial injury	3,637	1,562
1	143.07	problems of internal organs/external sites	116	1,558
1	27.05	ovarian dysfunction	277	1,556
1	92.02	varicose veins	608	1,553
1	62.02	Huntington's Disease, other abnormal movement disorders	199	1,544
1	131.04	other dislocations	2,667	1,540
1	69.01	essential hypertension	29,411	1,536
1	114.01	genital prolapse	854	1,530
1	95.02	nasal polyps/allergic rhinitis	2,523	1,529
1	137.04	allergy, unspecified	507	1,526
1	27.13	disorders of mineral metabolism	132	1,514
1	133.01	sprains	4,009	1,510
1	20.03	benign neoplasm of skin	2,716	1,494
1	118.05	other dermatological disorders	10,085	1,491
1	95.01	acute nose/throat infection	9,643	1,487
1	130.01	fractures of lower limb	659	1,486
1	27.14	cystic fibrosis, metabolism disorders, nec/nos	151	1,484
1	143.11	aftercare	372	1,475
1	58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	1,722	1,474
1	44.03	inflammatory spondylopathies	132	1,469

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	119.02	congenital anomalies of eye	342	1,464
1	93.03	endophthalmitis (eye inflammation)	42	1,454
1	94.03	vertiginous syndromes	1,112	1,447
1	5.01	infection late effects	35	1,443
1	94.02	otitis media (middle ear infection)	2,296	1,437
1	143.02	vaccination, medical exam, other preventive	12,215	1,423
1	20.06	benign neoplasm of eye	172	1,421
1	143.17	screening/observation/special exams	19,227	1,416
1	120.01	somatic/segmental dysfunction	1,668	1,415
1	107.01	kidney infection	120	1,413
1	90.01	phlebitis and thrombophlebitis	320	1,412
1	4.08	herpes zoster	891	1,404
1	4.11	other viral infections	1,538	1,403
1	21.02	carcinoma in situ of respiratory system	14	1,378
1	95.09	oral soft tissue/tongue/jaw disorders	403	1,361
1	33.01	pyloric/duodenal obstruction	3	1,357
1	25.02	other hypoglycemia	113	1,352
1	0.00	NO CLAIMS IN ANY DATA	75,226	1,337
1	143.15	administrative/consultation	265	1,335
1	13.01	cancer of uterus	151	1,326
1	93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	4,724	1,302
1	143.13	household/family/other psychosocial circumstances	33	1,300
1	89.02	Raynaud's syndrome	63	1,285
1	51.01	sickle cell and other hereditary hemolytic anemias	36	1,284
1	27.03	thyroid disorders	3,223	1,281
1	49.03	flat foot, acquired deformities of toe	612	1,280
1	27.11	disorders of lipoid metabolism (high cholesterol)	11,429	1,274
1	66.05	other neuropathy	69	1,267
1	113.03	other diseases of female genital organs	746	1,264
1	4.03	other intestinal infections	91	1,239
1	1.01	central nervous system infection (e.g., meningitis)	71	1,236
1	20.04	benign neoplasm of breast	11,050	1,223
1	143.01	infectious disease contact/carrier	78	1,220
1	60.09	developmental behavioral disorders	63	1,207
1	63.02	infantile cerebral palsy	160	1,194
1	27.01	goiter	381	1,194
1	27.02	thyrotoxicosis	486	1,193
1	4.16	other infections	583	1,176
1	113.05	menopausal and postmenopausal disorders	4,281	1,154
1	143.06	family history of disease	611	1,148
1	65.03	root/plexus disorders	36	1,134
1	139.02	other organ transplant	55	1,132
1	95.06	disorders of teeth and jaw	561	1,130
1	27.16	obesity/localized adiposity	457	1,108
1	143.10	other orthopedic aftercare	99	1,097
1	134.05	other accidents	551	1,086
1	113.02	vaginal and cervical diseases	1,932	1,077
1	17.01	cancer of the eye	38	1,047
1	4.06	other bacterial infections	99	1,045
1	4.02	viral enteritis (intestinal infections)	100	1,043
1	143.05	history of drug allergy/other health hazard	493	1,041
1	143.16	screening for malignant neoplasm	4,436	1,033
1	79.01	heart arrest/shock	35	1,033
1	136.03	nerve injury	92	1,026
1	89.05	disease of capillaries	101	998
1	27.07	other endocrine disorders	258	972
1	5.03	injury late effects	65	971
1	65.02	facial nerve disorders	120	938
1	137.03	poisoning by other nonmedicinal substances	346	905
1	4.12	late syphilis, symptomatic	10	854

TABLE C-2

SORTING ALGORITHM OUTPUT FOR HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	60.08	behavior disorder	55	821
1	60.10	mental retardation	641	785
1	90.03	hemorrhage nos	14	709
1	81.02	acute endo/myocarditis	10	637
1	90.04	compression of vein	11	604
1	138.05	misadventure to patient in surgery	14	578
1	136.04	early complications of trauma	51	578
1	70.04	secondary hypertension	33	576
1	60.03	psychophysiologic disorders	41	560
1	119.06	chromosomal anomalies	134	452
1	45.01	arthropathy with infection	36	318
1	6.04	other respiratory/intrathoracic cancer	16	300

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column.

SOURCE: 1992 (expenditures) and 1991 (diagnoses) Medicare claims.

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
23	142	CHEMOTHERAPY	736	$23,663
17	139.09	aspirator, respirator, other machine dependence	204	22,463
17	29	END STAGE LIVER DISORDERS	136	20,886
17	105.02	respiratory arrest	2,318	19,626
17	12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	350	18,943
17	19	SECONDARY CANCERS	849	18,888
17	105	RESPIRATORY FAILURE/ARREST	1,087	17,231
14	7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	354	16,331
14	117	CHRONIC ULCER OF SKIN	855	15,968
14	106	RENAL FAILURE	368	15,149
14	51	OTHER BLOOD DISEASES	526	15,104
14	66	POLYNEUROPATHY	132	14,686
14	96	EMPHYSEMA/CHRONIC BRONCHITIS	2,129	14,596
14	29.01	end stage liver disorders	597	14,505
14	106.02	acute renal failure	1,882	14,495
14	29.02	esophageal varices	351	14,413
14	102	LUNG DISEASES DUE TO EXTERNAL AGENTS	732	14,309
14	138.02	infection/inflammation due to internal device/graft	1,399	14,043
14	7.01	cancer of esophagus	328	14,023
12	10	LUNG CANCER	607	13,335
12	104.03	acute lung edema nos	1,634	12,922
12	19.02	secondary cancer of respiratory and digestive systems	1,983	12,840
12	23	DIABETES WITH ACUTE COMPLICATIONS	243	12,474
12	80	HEART FAILURE	6,530	12,464
12	24	DIABETES WITH CHRONIC COMPLICATIONS	1,815	12,288
12	104	OTHER LUNG DISEASE	378	12,066
10	134.04	suicide/self-inflicted injury	219	11,314
10	102.02	aspiration pneumonia	873	11,262
10	67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE,	90	11,207
10	45	ARTHROPATHY/BONE INFECTION	304	11,066
10	27.09	protein-calorie malnutrition	2,888	10,967
10	99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	952	10,944
10	99.01	gram-negative/staph pneumonia	1,610	10,781
10	89	PERIPHERAL VASCULAR DISEASE	695	10,713
10	2.01	septicemia/shock	4,544	10,551
10	89.07	gangrene	1,555	10,535
10	110	OTHER URINARY TRACT INFECTIONS	2,403	10,461
10	25.01	hypoglycemic coma	444	10,418
10	6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	167	10,414
10	84	ARTERIAL EMBOLISM AND THROMBOSIS	692	10,410
10	63.04	paraplegia	588	10,331
10	51.03	aplastic anemia	916	10,281
10	25	HYPOGLYCEMIA	297	10,274
10	56	MANIC AND DEPRESSIVE DISORDERS	2,176	10,188
10	2	SEPTICEMIA/SHOCK	1,379	10,125
10	6.02	cancer of pharynx	459	10,024
8	78	VENTRICULAR TACHYCARDIA	331	9,981
8	101	ASTHMA	1,153	9,820
8	50	ANEMIA	506	9,061
8	16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	674	8,956
8	19.03	secondary cancer of other site	2,774	8,954
8	10.01	lung cancer	2,611	8,695
8	53	SUBSTANCE-RELATED PSYCHOSES	210	8,682
8	12.04	myeloid leukemia	271	8,635

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
8	17	NEOPLASM OF NERVOUS SYSTEM	180	8,612
8	84	CEREBROVASCULAR DISEASE	4,080	8,564
8	63	OTHER NEUROLOGIC DISORDERS	289	8,559
8	92	OTHER CIRCULATORY DISEASE	326	8,554
8	24.01	diabetes with renal manifestation	651	8,526
8	18	OTHER CANCER	200	8,421
8	106.03	chronic renal failure	2,126	8,414
8	122	FEVER	168	8,413
8	12.02	multiple myeloma	659	8,410
8	54	DELIRIUM/HALLUCINATIONS	282	8,357
8	97	OTHER BRONCHITIS	1,760	8,336
8	51.02	acquired hemolytic anemia	277	8,321
8	104.04	post trauma/surgery pulmonary insufficiency	520	8,235
8	109	OTHER RENAL/URETERAL DISEASES	237	8,231
8	7.05	cancer of pancreas	289	8,184
8	57	PARANOIA AND OTHER PSYCHOSES	434	8,178
8	116	DERMATOLOGICAL DISORDERS	1,366	8,167
8	37	REGIONAL ENTERITIS	139	8,142
7	119	CONGENITAL ANOMALIES	83	8,139
8	26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	1,802	8,138
8	140	REHABILITATION PROCEDURES	2,279	8,135
8	84.03	aphasia (loss of language skills/comprehension)	1,239	8,111
8	44	CONNECTIVE TISSUE DISEASES	449	8,090
8	69	HYPERTENSION, UNCOMPLICATED	785	8,076
8	55	SCHIZOPHRENIC DISORDERS	1,347	8,047
8	3.01	HIV/AIDS (including pneumocytosis)	325	8,042
8	64	EPILEPSY AND OTHER SEIZURE DISORDERS	844	8,029
7	5	LATE EFFECTS	59	7,725
7	7.04	cancer of liver	193	7,305
7	52	DEMENTIA	669	7,210
7	103	PLEURISY/PNEUMOTHORAX	212	7,198
7	73	OTHER ACUTE ISCHEMIA	4,970	7,158
7	136	BURNS/NERVE, SPINAL CORD INJURES	105	7,123
7	74	ANGINA PECTORIS	1,539	7,105
7	125	URINARY SYSTEM/ABDOMINAL-PELVIC SYMPTOMS	642	7,100
7	60	OTHER MENTAL DISORDERS	408	7,081
7	42	GASTROINTESTINAL HEMORRHAGE	976	7,081
7	86	ATHEROSCLEROSIS	317	7,009
6	30	OTHER LIVER DISORDERS	109	6,765
6	66.04	muscular dystrophies	455	6,752
6	19.01	secondary cancer of lymph node	733	6,722
6	54.01	delirium/delusions/hallucinations	1,402	6,712
6	93.02	proliferative diabetic retinopathy	1,154	6,712
6	24.02	diabetes with other specified complications	4,908	6,663
6	72.01	acute myocardial infarction	3,238	6,654
6	68	VALVULAR AND RHEUMATIC HEART DISEASE	393	6,644
6	49	OTHER BONE DISORDERS	880	6,539
6	88.01	arterial embolism and thrombosis (blood clots)	2,587	6,534
6	126	VERTEBRAL INJURY	386	6,510
6	63.03	quadriplegia	208	6,459
6	139.06	artificial opening status/attention	1,391	6,451
6	132.07	traumatic amputation of limb/hand/foot/toe	564	6,436
6	38	PERITONITIS/INTESTINAL OBSTRUCTION	1,254	6,422
6	95.05	paralysis of vocal cords/larynx	249	6,393

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
6	121	COMA/ SYNCOPE	1,472	6,390
6	70	HYPERTENSION, COMPLICATED	353	6,388
6	62.03	anterior horn cell disease	254	6,386
6	87.01	aortic aneurysm	3,959	6,340
6	131.02	dislocation of hip	275	6,339
6	9	RECTAL CANCER	246	6,324
6	100	BACTERIAL PNEUMONIA	3,571	6,314
6	126.02	vertebral fracture with spinal cord injury	374	6,305
6	106.04	renal failure, unspecified	1,421	6,295
6	72	ACUTE MYOCARDIAL INFARCTION	2,564	6,286
6	62	DEGENERATIVE NEUROLOGIC DISORDERS	202	6,262
6	80.01	heart failure	33,496	6,254
6	53.01	alcoholic psychoses	440	6,233
6	138.03	other complications of certain specified medical procedures	3,057	6,225
6	138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	2,035	6,212
6	62.05	autonomic nerve disorder	781	6,203
6	107	KIDNEY INFECTION	331	6,202
6	117.01	chronic ulcer of skin	10,091	6,185
6	8	COLON CANCER	643	6,178
6	104.01	empyema/abscess of lung	313	6,162
6	78.01	ventric tachycardia	1,869	6,161
6	138.01	malfunction of internal orthopedic device/graft	1,091	6,160
6	89.06	vascular insufficiency of intestines	479	6,157
6	19.04	disseminated cancer	585	6,151
6	12.03	lymphoid leukemia	946	6,151
6	81	OTHER CARDIAC DISEASE	242	6,142
6	137	POISONING/TOXIC EFFECTS	358	6,138
6	66.02	inflammatory/toxic neuropathy	1,516	6,133
6	87.02	other aneurysm	1,016	6,125
6	38.02	peritonitis	391	6,120
6	12.05	other leukemia	521	6,120
6	139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	282	6,104
6	53.02	drug psychoses	320	6,101
6	143	HISTORY OF DISEASE/AFTERCARE/SCREENING	582	6,095
6	63.05	cauda equina syndrome	1,817	6,087
6	85	TRANSIENT CEREBRAL ISCHEMIA	1,582	6,053
6	84.02	hemiplegia (paralysis of one side of body)	1,848	6,024
6	30.01	cirrhosis	1,042	6,021
6	136.01	third degree burns	157	6,001
5	139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	128	5,628
5	58	NEUROTIC DISORDERS	143	5,533
5	98	VIRAL PNEUMONIA/INFLUENZA	131	5,318
5	120	GENERAL SYMPTOMS	278	5,285
5	59	SUBSTANCE ABUSE AND DEPENDENCE	298	5,213
5	59.02	drug dependence	259	5,212
5	75	PULMONARY HEART DISEASE	121	5,177
5	91	HYPOTENSION (LOW BLOOD PRESSURE)	142	5,175
5	61	HEADACHES	89	5,157
5	83	PRECEREBRAL ARTERIAL OCCLUSION	562	5,049
5	65	MONONEUROPATHY	88	5,026
5	18.01	cancer of bone and articular cartilage	394	5,016
4	121.01	coma	577	4,967
4	82	CEREBRAL HEMORRHAGE	108	4,946
4	128.01	pelvic fracture	932	4,907

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
4	15.02	cancer of testis/male genital organs	163	4,836
4	111	OTHER URINARY DISORDERS	239	4,819
4	13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	180	4,807
4	129.01	femoral fracture	4,051	4,796
4	32.02	ulcer with perforation	377	4,785
4	71	MYOCARDIAL INFARCTION	980	4,783
4	89.03	peripheral vascular disease	10,715	4,773
4	47	BACK PAIN	1,429	4,766
4	57.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	1,255	4,766
4	123.02	hemoptysis (coughing up blood)	873	4,757
4	134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	243	4,752
4	62.01	Parkinson's disease	4,320	4,739
4	28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	303	4,732
4	86.01	atherosclerosis of major vessel	6,393	4,730
4	92.03	other circulatory disease/postphlebitic syndrome	1,963	4,725
4	93.01	diabetic retinopathy	4,302	4,724
4	119.01	spina bifida, other congenital anomalies of nervous system	391	4,722
4	14.01	cancer of ovaries/placenta/uterine adnexia	469	4,696
4	54.02	hallucinations, symptomatic	214	4,689
4	43	GOUT/ARTHROPATHY/DERANGEMENTS	209	4,685
4	16.01	cancer of bladder/kidney/urinary organs	2,687	4,681
4	105.01	respiratory failure	4,406	4,674
4	5.02	cerebrovascular disease late effects	2,213	4,668
4	6.01	cancer of mouth/tongue	413	4,667
4	38.01	intestinal obstruction	2,894	4,666
4	84.01	cerebrovascular accident (stroke)	11,937	4,658
4	27.12	disorders of plasma protein metabolism	413	4,657
4	73.01	other acute ischemia	4,530	4,640
4	90	THROMBOPHLEBITIS	393	4,635
4	31	DISEASES OF ESOPHAGUS	468	4,631
4	75.02	other pulmonary heart disease	1,613	4,630
4	106.01	nephritis, dialysis encounter	578	4,619
4	82.01	cerebral hemorrhage	825	4,619
4	129	FEMORAL FRACTURE	1,490	4,608
4	68.03	mitral/aortic valve disorders	1,671	4,599
4	71.02	old myocardial infarction	3,458	4,599
4	20.02	benign neoplasm of respiratory system	382	4,598
4	7.03	cancer of small bowel	151	4,588
4	75.01	pulmonary embolism (blood clot)	589	4,580
4	28.02	chronic pancreatitis/other pancreatic diseases	1,064	4,578
4	89.04	other arterial disease	2,141	4,575
4	33	GASTRITIS/OTHER GASTRIC DISORDERS	605	4,574
4	71.01	myocardial infarction	2,916	4,567
4	77	ATRIAL ARRYTHMIA	914	4,527
4	139.04	joint replacement	2,233	4,518
4	24.03	diabetes with unspecified complications	5 021	4,501
4	15.01	prostate cancer	7,897	4,486
4	143.14	care not delivered	709	4,486
4	12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	1,228	4,484
4	119.03	congenital anomalies of cardiac/circulatory systems	3,128	4,482
4	139.03	heart, heart valve replacement by artificial device	697	4,479
4	128	PELVIC FRACTURE	227	4,478
4	52.01	senile/presenile psychoses	5,527	4,461
4	66.01	peripheral neuropathy	2,182	4,460

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
4	68.01	rheumatic fever/heart disease	1,096	4,456
4	32	ULCERS	882	4,451
4	20.05	benign neoplasm of urinary	396	4,450
4	18.02	cancer of connective and other soft tissue	430	4,450
4	15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	850	4,434
4	81.01	pericarditis, post-MI	544	4,433
4	63.08	other central nervous system disorders	404	4,415
4	7.02	cancer of stomach	218	4,414
4	9.01	rectal cancer	1,928	4,405
4	139.07	postsurgical states, eye	129	4,401
4	76	RHYTHM AND CONDUCTION DISORDERS	914	4,397
4	106.05	impaired renal function	415	4,382
4	125.01	retention of urine	3,080	4,380
4	17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	733	4,364
4	27.04	adrenal gland disorders	498	4,358
4	51.05	purpura/thrombocytopathy/hemorrhagic conditions	1,117	4,351
4	81.04	cardiomegaly (enlarged heart)	5,810	4,342
4	74.01	angina pectoris	18,760	4,340
4	116.02	bullous dermatoses	358	4,319
4	83.01	precerebral arterial occlusion	5,784	4,316
4	52.02	other organic psychotic conditions	828	4,311
4	37.01	regional enteritis (Crohn's disease)	685	4,311
4	41.02	biliary tract disease	503	4,306
4	51.04	hemophilia and other coagulation defects	1,877	4,302
4	56.01	manic and depressive disorders	5,336	4,302
4	139.05	other organ replacement	156	4,298
4	126.01	vertebral fracture without spinal cord injury	2,123	4,291
4	39	DIVERTICULA OF INTESTINE	866	4,283
4	52.03	cerebral degeneration/Alzheimer's disease	4,707	4,270
4	21.04	neoplasm of uncertain behavior, specified sites	2,671	4,270
4	28.01	acute pancreatitis	941	4,266
4	57.02	other nonorganic psychoses	3,806	4,264
4	121.02	syncope (fainting) and collapse	7,235	4,261
4	81.03	cardiomyopathy/myocarditis	2,337	4,260
4	134.03	accidental falls	4,299	4,241
4	85.01	transient cerebral ischemia	6,509	4,241
4	21.01	carcinoma in situ of digestive organs	515	4,240
4	89.01	specified peripheral vascular disease	960	4,218
4	62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	288	4,211
4	17.02	cancer of the brain/nervous system/pituitary, pineal glands	718	4,201
4	4	OTHER INFECTIOUS AND PARASITIC DISEASES	474	4,194
4	68.02	mitral or aortic valve/endocardia disease	11,039	4,189
4	131.05	fracture of rib, closed	2,432	4,186
4	96.01	emphysema/chronic bronchitis	33,666	4,184
4	123.01	dyspnea (labored breathing)/other resp abnormalities	18,731	4,179
4	103.01	pleurisy/pneumothorax	2,694	4,179
4	102.03	respiratory conditions due to other external agents/postinflammatory fibrosis	2,489	4,170
4	18.06	other/ill-defined site cancer	2,954	4,168
4	98.01	viral pneumonia	609	4,168
4	46	OSTEOARTHRITIS	2,031	4,160
4	52.04	senility without psychosis	595	4,160
4	132.03	gi/liver/kidney/spleen/pelvis injury	492	4,158
4	77.01	atrial arrhythmia	12,750	4,157
4	143.09	prothesis/other device fitting, adjustment	721	4,157

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
4	140.01	rehabilitation procedures	2,851	4,155
4	124	CARDIOVASCULAR SYMPTOMS	1,490	4,154
4	81.05	other heart disease	5,636	4,151
4	142.01	chemotherapy	538	4,146
4	66.03	myoneural disorders/myasthenia gravis	270	4,144
4	109.02	hydronephrosis/other renal/urethral disorders	4,753	4,143
4	33.01	pyloric/duodenal obstruction	218	4,138
4	26.01	disorders of fluid/electrolyte/acid-base balance	11,069	4,133
4	23.01	diabetes with acute complications	994	4,131
4	133	SPRAINS	388	4,127
4	40.03	intestinal abcess/ulceration/perforation	1,198	4,125
4	132.01	foreign body in pharynx/larynx	902	4,113
4	62.04	other spinal cord disease	449	4,113
4	139.08	other postsurgical states, including dialysis status	6,980	4,108
4	60.06	nonpsychotic organic brain syndrome	2,839	4,089
4	102.01	bronchiectasis, lung diseases due to specified external agent	1,338	4,086
4	6.03	cancer of larynx	461	4,078
4	34.01	appendicitis	376	4,077
4	63.07	nervous/musculoskeletal system symptoms	3,636	4,077
4	131	FRACTURE/DISLOCATION	623	4,076
4	44.01	systemic lupus erythematosus and other connective tissue disease	2,722	4,076
4	125.02	incontinence/urethral discharge	3,497	4,074
4	40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	718	4,073
4	8.01	colon cancer	2,412	4,069
4	63.06	other paralytic disorders	340	4,067
4	71.03	other chronic ischemic heart disease	58,513	4,045
4	4.14	thrush	390	4,042
4	44.02	rheumatoid arthritis and other inflammatory polyarthropathy	8,450	4,042
4	90.02	noninfectious lymphatic disorders	597	4,042
4	143.12	donor	166	4,036
4	51.08	other blood disease	2,765	4,024
4	118.04	diseases of nail	21,106	4,017
4	137.01	poisoning by prescription or over-the-counter medications	1,201	4,015
4	4.07	bacterial infection in other diseases	1,826	4,012
4	91.01	hypotension (low blood pressure)	1,852	4,009
4	123	RESPIRATORY/OTHER CHEST SYMPTOMS	139	4,009
4	51.06	white blood cell disorders	1,295	4,008
4	104.05	other lung disease	8,291	4,001
2	48	DISORDERS OF SOFT TISSUES	70	3,219
2	70.05	hypertension encephalopathy	69	3,099
2	27.15	other hyperalimentation	104	2,975
2	70.03	hypertensive heart and renal disease	214	2,948
2	45.02	osteomyelitis	330	2,913
2	38.03	other peritoneal disorders	104	2,903
2	119.04	congenital anomalies of musculoskeletal/limb	1,050	2,861
2	134.01	concussion	124	2,847
2	131.01	shoulder dislocation	189	2,846
2	135.01	intracranial injury	470	2,837
2	59.01	alcohol dependence	241	2,835
2	136.03	nerve injury	318	2,765
2	131.03	dislocation of knee	747	2,746
2	55.01	schizophrenic disorders	2,554	2,715
1	27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	1	2,710
2	45.01	arthropathy with infection	152	2,707

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
2	141.01	radiation therapy	198	2,685
2	51.07	immune disorders	119	2,654
2	22.01	diabetes without complications	18,094	2,623
2	60.07	depression, not elsewhere classified	1,732	2,618
2	109.01	urethral stricture	923	2,592
2	27.06	testicular dysfunction	111	2,586
2	93	DISORDERS OF THE EYE AND ADNEXA	140	2,581
2	41.01	cholelithiasis (gallstones)	1,000	2,579
2	70.02	malignant hypertensive heart disease	543	2,570
2	107.01	kidney infection	424	2,561
2	21.03	carcinoma in situ of other sites	845	2,521
2	49.01	osteoporosis	2,569	2,518
2	86.02	atherosclerosis/general, ascvd	4,116	2,507
2	93.08	vitreous hemorrhage	266	2,502
2	46.01	osteoarthrosis	27,099	2,498
2	11	BREAST CANCER	201	2,497
2	35.01	abdominal hernia, complicated	186	2,495
2	65.04	root/plexus lesions	176	2,492
2	4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	6,900	2,467
2	49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	3,333	2,465
2	37.02	ulcerative colitis	283	2,460
2	65.05	other cranial nerve disorders	54	2,453
2	60.11	other mental disorders	273	2,453
2	4.10	viral hepatitis	87	2,450
2	18.03	melanoma	325	2,442
2	100.02	other pneumonia	2,652	2,437
2	119.05	congenital anomalies of skin	601	2,424
2	43.02	other arthropathy/joint disorders, derangements	23,692	2,424
2	125.04	abdominal/pelvis symptoms	14,340	2,411
2	111.01	other urinary disorders	4,054	2,406
2	50.01	iron deficiency and other anemias	7,258	2,404
2	131.07	other fractures	1,576	2,401
2	116.01	cellulitis/abscess/other local skin infection	6,646	2,388
2	127.01	fractures of skull/face	176	2,388
2	93.03	endophthalmitis (eye inflammation)	91	2,377
2	76.01	conduction disorders/cardiac dysrhythmias	6,019	2,367
2	41.03	other gallbladder disorders	1,274	2,367
2	76.02	premature heart beats	1,217	2,349
2	92.01	superficial phlebitis-leg	248	2,347
2	60.04	acute reaction to stress	322	2,341
2	25.02	other hypoglycemia	434	2,336
2	70.01	malignant hypertension	4,593	2,336
2	11.01	breast cancer	3,411	2,335
2	27.13	disorders of mineral metabolism	484	2,331
2	44.03	inflammatory spondylopathies	446	2,326
2	60.02	sexual deviations and disorders	385	2,325
2	69.02	hypertensive heart disease	4,379	2,325
2	136.02	other burns	474	2,323
2	123.04	respiratory/other chest symptoms	3,432	2,320
2	124.01	chest pain	13,541	2,319
2	113.04	female stress incontinence	668	2,316
2	4.01	bacterial enteritis (intestinal infections)	72	2,313
2	95.08	salivary gland diseases	390	2,313
2	112.01	hyperplasia of prostate	9,862	2,313

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
2	47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	23,060	2,308
2	101.01	asthma	3,278	2,303
2	42.01	gastrointestinal hemorrhage	2,969	2,302
2	57.01	paranoid states	77	2,296
2	63.01	multiple sclerosis, other central nervous system dymelination	354	2,294
2	27.08	miscellaneous endocrine disorders	386	2,292
2	60.05	adjustment reaction	596	2,292
2	44.04	polymyalgia rheumatica	676	2,291
1	20.06	benign neoplasm of eye	22	2,289
2	36.01	abdominal hernia/uncomplicated	5,302	2,286
2	33.02	gastritis/other gastric disorder (stomach disorders)	14,597	2,286
2	65.01	trigeminal nerve disorder	286	2,284
2	32.01	ulcer without perforation	3,151	2,281
2	65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	1,528	2,279
2	112.03	penis/testis/male genital organs disorders	1,876	2,279
2	58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	5,349	2,278
2	92.04	other specified circulatory disorders	781	2,277
2	13.02	cancer of cervix/female genital organs	308	2,277
2	143.04	history of mental disorder/other disease	695	2,277
2	20.01	benign neoplasm of digestive system	3,611	2,276
2	90.01	phlebitis and thrombophlebitis	1,070	2,276
2	95.04	larynx/vocal cord diseases	301	2,276
2	40.02	anal/rectal disorders	4,397	2,274
2	21.06	unspecified neoplasm	3,236	2,274
2	40.04	other intestinal disorders	4,799	2,270
2	120.03	malaise and fatigue	6,078	2,264
2	138.04	other complications of medical and surgical procedures, nec, (e.g., post-operative infect	865	2,264
2	36	ABDOMINAL HERNIA/ UNCOMPLICATED	186	2,264
2	31.01	disease of esophagus	4,443	2,256
2	43.01	gout/crystal arthropathy	3,092	2,255
2	49.03	flat foot, acquired deformities of toe	2,600	2,245
2	4.02	viral enteritis (intestinal infections)	371	2,245
1	131.04	other dislocations	274	2,242
1	1.01	central nervous system infection (e.g., meningitis)	12	2,240
2	137.04	allergy, unspecified	1,438	2,235
2	130.01	fractures of lower limb	1,874	2,233
2	112.02	other prostatic disorders	3,387	2,231
2	110.01	cystitis, other urinary tract infections	15,401	2,221
2	30.02	other liver disorders	826	2,218
2	134.02	contusion/superficial injury	10,448	2,215
2	119.07	other congenital anomalies	900	2,213
2	4.06	other bacterial infections	240	2,210
1	27.14	cystic fibrosis, metabolism disorders, nec/nos	26	2,208
2	120.02	dizziness and giddiness	6,065	2,204
2	95.09	oral soft tissue/tongue/jaw disorders	1,087	2,198
2	122.01	fever	813	2,194
2	13.01	cancer of uterus	416	2,187
2	132.02	heart/lung/blood vessels injury	63	2,184
2	132.04	open wound of eye	171	2,184
2	95.07	other diseases of upper respiratory system	2,808	2,179
2	124.02	other cardiovascular symptoms	3,353	2,177
2	108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	1,195	2,176
2	48.01	disorders of soft tissue	24,194	2,174
2	143.01	infectious disease contact/carrier	197	2,168

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
2	139.02	other organ transplant	124	2,167
2	51.01	sickle cell and other hereditary hemolytic anemias	115	2,161
2	120.04	other general symptoms	21,818	2,161
2	61.01	headaches, including migraine	5,262	2,160
2	39.01	diverculs of intestine	7,029	2,155
2	93.04	retinal disorders	14,609	2,150
2	104.02	pulmonary congestion/hypostasis	744	2,148
2	18.04	skin cancer, except melanoma	7,894	2,146
2	133.01	sprains	11,570	2,142
2	92.02	varicose veins	1,711	2,138
2	65.07	neuropathy of leg	1,122	2,136
2	62.02	Huntington's Disease, other abnormal movement disorders	512	2,130
2	137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	401	2,129
2	59.03	non-dependent abuse of drugs	458	2,127
2	94.01	impacted earwax	8,258	2,126
2	18.05	thyroid/endocrine cancer	85	2,121
2	123.03	cough	4,558	2,119
2	131.06	hand/wrist/lower arm fracture	1,966	2,117
2	97.01	other bronchitis	17,546	2,115
2	132.06	open wound of other sites	3,199	2,113
2	127.02	fractures of nasal bone	129	2,112
2	98.02	influenza	2,690	2,103
2	5.03	injury late effects	203	2,100
2	125.03	other urinary system symptoms	3,916	2,100
2	27.07	other endocrine disorders	709	2,099
2	113.01	diseases of female pelvic organs	1,186	2,094
2	27.10	vitamin/other nutritional deficiencies	893	2,092
2	64.01	epilepsy and other seizure disorders	2,633	2,088
2	94.05	other ear disorders	5,865	2,084
2	143.03	history of malignant neoplasm	2,925	2,080
2	137.05	adverse effects of drugs in therapeutic use	1,096	2,079
2	5.01	infection late effects	107	2,077
2	4.11	other viral infections	4,049	2,072
2	49.04	other acquired limb deformities	589	2,071
2	93.05	glaucoma	18,155	2,070
2	21.05	neoplasm of uncertain behavior nec/nos	3,766	2,069
1	7.06	other cancer of digestive organs/peritoneum	2	2,065
2	60.08	behavior disorder	134	2,052
2	20	BENIGN NEOPLASMS	100	2,049
2	95.03	chronic sinusitis	5,741	2,042
2	65.03	root/plexus disorders	118	2,038
2	132.05	open wound/injury of lower arm	4,006	2,028
2	108	RENAL/URETERAL/BLADDER CALCULUS	83	2,027
2	20.07	other benign neoplasms	3,030	2,023
2	113	DISEASES OF FEMALE GENITAL ORGANS	83	2,022
2	69.01	essential hypertension	69,214	2,021
2	143.08	elective surgery	72	2,016
2	93.06	cataract/lens replacement	56,222	2,014
2	120.01	somatic/segmental dysfunction	4,246	2,003
2	118.02	psoriasis and similar disorders	1,331	2,001
1	4.09	herpes simplex	32	1,998
1	115.01	pregnancy/birth complications, mother/child	59	1,960
1	94	EAR DISORDERS	1	1,752
1	4.05	strep throat/scarlet fever	30	1,639

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
1	27.05	ovarian dysfunction	49	1,536
1	89.02	Raynaud's syndrome	15	1,484
1	40.01	hemorrhoids	147	1,435
1	95.01	acute nose/throat infection	1,621	1,414
1	95.02	nasal polyps/allergic rhinitis	346	1,414
1	93.09	other eye disorders	3,224	1,371
1	0	NO CLAIMS IN DATA	74,971	1,334
1	115.02	pregnancy with abortive outcome	1	1,293
1	114.01	genital prolapse	137	1,267
1	143.02	vaccination, medical exam, other preventive	2,637	1,264
1	94.04	hearing loss	294	1,259
1	118.03	other dermatosis	1,060	1,175
1	95.06	disorders of teeth and jaw	133	1,164
1	118.05	other dermatological disorders	2,008	1,153
1	94.02	otitis media (middle ear infection)	380	1,127
1	4.15	mycoses (fungal diseases), miscellaneous	21	1,107
1	66.05	other neuropathy	7	1,088
1	4.16	other infections	108	1,050
1	21.02	carcinoma in situ of respiratory system	3	1,049
1	132.09	foreign body in eye/ear/nose	97	1,036
1	89.05	disease of capillaries	18	1,035
1	119.02	congenital anomalies of eye	59	1,034
1	94.03	vertiginous syndromes	136	1,023
1	27.02	thyrotoxicosis	72	1,003
1	143.05	history of drug allergy/other health hazard	59	996
1	143.17	screening/observation/special exams	2,008	984
1	20.03	benign neoplasm of skin	399	981
1	113.05	menopausal and postmenopausal disorders	713	964
1	27.01	goiter	51	939
1	4.08	herpes zoster	211	922
1	134.05	other accidents	35	922
1	60.01	personality disorders	33	871
1	27.03	thyroid disorders	498	867
1	20.04	benign neoplasm of breast	1,594	833
1	93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	825	830
1	4.03	other intestinal infections	18	810
1	115.03	normal pregnancy/delivery	12	789
1	27.11	disorders of lipoid metabolism (high cholesterol)	1,353	777
1	143.06	family history of disease	96	743
1	63.02	infantile cerebral palsy	64	743
1	113.02	vaginal and cervical diseases	304	731
1	137.03	poisoning by other nonmedicinal substances	92	691
1	113.03	other diseases of female genital organs	130	676
1	143.16	screening for malignant neoplasm	583	614
1	90.04	compression of vein	1	606
1	60.10	mental retardation	219	604
1	70.04	secondary hypertension	7	587
1	115	PREGNANCY/PERINATAL CONDITIONS	10	579
1	143.15	administrative/consultation	45	569
1	100.01	specific bacterial pneumonia	6	470
1	4.04	tuberculosis	15	457
1	143.11	aftercare	19	440
1	119.06	chromosomal anomalies	59	428
1	65.02	facial nerve disorders	21	372

TABLE C-3

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL (PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCG	EDXG	LABEL	FREQUENCY	MEAN
1	27.16	obesity/localized adiposity	41	316
1	143.07	problems of internal organs/external sites	10	252
1	60.09	developmental behavioral disorders	15	202
1	132.08	crushing injury	5	166
1	17.01	cancer of the eye	5	155
1	79.01	heart arrest/shock	10	148
1	143.10	other orthopedic aftercare	4	144
1	118.01	dermatitis due to internal agent	8	139
1	95	NOSE/ THROAT DISEASES	1	137
1	6.04	other respiratory/intrathoracic cancer	6	133
1	143.13	household/family/other psychosocial circumstances	3	101
1	136.04	early complications of trauma	7	99
1	114	GENITAL PROLAPSE	3	85
1	60.03	psychophysiologic disorders	9	61
1	138.05	misadventure to patient in surgery	1	1
1	81.02	acute endo/myocarditis	1	0

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column

SOURCE: 1992 (expenditures) and 1991 (diagnoses) Medicare claims

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
31	P5	***tracheostomy***	378	$42,301
31	P2	***dialysis***	203	34,102
23	142	CHEMOTHERAPY	732	23,412
20	P7	***venous access port***	477	21,069
20	29	END STAGE LIVER DISORDERS	135	20,585
17	19	SECONDARY CANCERS	793	18,429
17	P3	***gastrostomy***	1,210	18,224
17	12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	322	17,863
14	105	RESPIRATORY FAILURE/ARREST	1,021	16,404
14	105.02	respiratory arrest	2,038	15,998
14	117	CHRONIC ULCER OF SKIN	815	15,885
14	P4	***enterostomy***	317	15,842
14	7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	329	15,744
14	96	EMPHYSEMA/CHRONIC BRONCHITIS	2,419	15,618
14	P6	***surgical amputations***	636	15,449
14	51	OTHER BLOOD DISEASES	510	14,638
14	106	RENAL FAILURE	335	14,534
14	66	POLYNEUROPATHY	134	14,324
14	104.03	acute lung edema nos	2,022	14,190
14	29.01	end stage liver disorders	600	14,038
12	10	LUNG CANCER	583	13,221
12	80	HEART FAILURE	6,057	12,386
12	19.02	secondary cancer of respiratory and digestive systems	1,868	12,319
12	138.02	infection/inflammation due to internal device/graft	1,155	12,144
12	106.02	acute renal failure	1,306	12,008
10	23	DIABETES WITH ACUTE COMPLICATIONS	223	11,516
10	134.04	suicide/self-inflicted injury	217	11,333
10	67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE,	89	11,276
10	102	LUNG DISEASES DUE TO EXTERNAL AGENTS	527	11,205
10	45	ARTHROPATHY/BONE INFECTION	296	11,144
10	24	DIABETES WITH CHRONIC COMPLICATIONS	1,540	11,065
10	99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	958	10,909
10	25	HYPOGLYCEMIA	325	10,860
10	7.01	cancer of esophagus	228	10,807
10	102.02	aspiration pneumonia	1,157	10,775
10	99.01	gram-negative/staph pneumonia	1,614	10,639
10	25.01	hypoglycemic coma	504	10,599
10	89	PERIPHERAL VASCULAR DISEASE	597	10,432
10	56	MANIC AND DEPRESSIVE DISORDERS	2,199	10,421
10	2.01	septicemia/shock	4,478	10,346
10	110	OTHER URINARY TRACT INFECTIONS	2,368	10,287
10	89.07	gangrene	1,393	10,265
10	51.03	aplastic anemia	922	10,133
8	78	VENTRICULAR TACHYCARDIA	333	10,103
10	53	SUBSTANCE-RELATED PSYCHOSES	262	10,077
10	6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	134	10,076
10	63.04	paraplegia	586	10,062
10	101	ASTHMA	1,263	10,014
8	29.02	esophageal varices	214	9,138
8	50	ANEMIA	529	9,112
8	19.03	secondary cancer of other site	2,793	9,017
8	88	ARTERIAL EMBOLISM AND THROMBOSIS	483	9,001
8	16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	676	8,941
8	6.02	cancer of pharynx	381	8,826
8	104	OTHER LUNG DISEASE	194	8,788
8	10.01	lung cancer	2,659	8,709
8	12.04	myeloid leukemia	269	8,689
8	139.09	aspirator, respirator, other machine dependence	58	8,682
8	84	CEREBROVASCULAR DISEASE	4,124	8,618
8	24.01	diabetes with renal manifestation	651	8,591
8	17	NEOPLASM OF NERVOUS SYSTEM	180	8,518
8	63	OTHER NEUROLOGIC DISORDERS	293	8,501
8	27.09	protein-calorie malnutrition	1,875	8,463
7	119	CONGENITAL ANOMALIES	78	8,438
8	12.02	multiple myeloma	664	8,390
8	122	FEVER	175	8,325

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
8	106.03	chronic renal failure	2,139	8,312
8	104.04	post trauma/surgery pulmonary insufficiency	538	8,281
8	7.05	cancer of pancreas	300	8,268
8	109	OTHER RENAL/URETERAL DISEASES	241	8,250
8	54	DELIRIUM/HALLUCINATIONS	283	8,244
8	92	OTHER CIRCULATORY DISEASE	331	8,225
8	97	OTHER BRONCHITIS	1,727	8,224
8	37	REGIONAL ENTERITIS	160	8,192
8	84.03	aphasia (loss of language skills/comprehension)	1,245	8,147
8	86	ATHEROSCLEROSIS	398	8,143
8	140	REHABILITATION PROCEDURES	2,320	8,131
8	7.04	cancer of liver	248	8,103
8	116	DERMATOLOGICAL DISORDERS	1,375	8,101
8	26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	1,925	8,090
8	30	OTHER LIVER DISORDERS	173	8,072
8	69	HYPERTENSION, UNCOMPLICATED	787	8,064
8	55	SCHIZOPHRENIC DISORDERS	1,349	8,053
8	84.02	hemiplegia (paralysis of one side of body)	4,308	8,017
8	104.01	empyema/abscess of lung	447	8,015
7	136	BURNS/NERVE, SPINAL CORD INJURES	105	7,577
7	57	PARANOIA AND OTHER PSYCHOSES	317	7,567
7	44	CONNECTIVE TISSUE DISEASES	379	7,516
7	51.02	acquired hemolytic anemia	222	7,309
7	52	DEMENTIA	685	7,302
7	73	OTHER ACUTE ISCHEMIA	4,911	7,170
7	3.01	HIV/AIDS (including pneumocytosis)	280	7,161
7	60	OTHER MENTAL DISORDERS	417	7,124
7	62	DEGENERATIVE NEUROLOGIC DISORDERS	210	7,080
7	125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	634	7,049
7	74	ANGINA PECTORIS	1,534	7,048
7	66.04	muscular dystrophies	479	7,007
6	P1	*Intubation/mechanical ventilation*	868	6,805
6	54.01	delirium/delusions/hallucinations	1,399	6,736
6	93.02	proliferative diabetic retinopathy	1,149	6,657
6	42	GASTROINTESTINAL HEMORRHAGE	904	6,638
6	72.01	acute myocardial infarction	3,229	6,617
6	24.02	diabetes with other specified complications	4,880	6,616
6	68	VALVULAR AND RHEUMATIC HEART DISEASE	394	6,605
6	19.01	secondary cancer of lymph node	711	6,559
6	103	PLEURISY/PNEUM/MOTHORAX	190	6,534
6	49	OTHER BONE DISORDERS	870	6,492
6	63.03	quadriplegia	290	6,476
6	126	VERTEBRAL INJURY	384	6,463
6	88.01	arterial embolism and thrombosis (blood clots)	2,561	6,403
6	131.02	dislocation of hip	273	6,384
6	70	HYPERTENSION, COMPLICATED	348	6,368
6	137	POISONING/TOXIC EFFECTS	355	6,362
6	38	PERITONITIS/INTESTINAL OBSTRUCTION	1,220	6,347
6	87.01	aortic aneurysm	3,941	6,308
6	121	COMA/ SYNCOPE	1,467	6,298
6	100	BACTERIAL PNEUMONIA	3,507	6,274
6	64	EPILEPSY AND OTHER SEIZURE DISORDERS	581	6,269
6	72	ACUTE MYOCARDIAL INFARCTION	2,542	6,261
6	132.07	traumatic amputation of limb/hand/foot/toe	538	6,245
6	126.02	vertebral fracture with spinal cord injury	373	6,240
6	80.01	heart failure	33,408	6,227
6	53.02	drug psychoses	315	6,223
6	53.01	alcoholic psychoses	456	6,200
6	95.05	paralysis of vocal cords/larynx	245	6,200
6	106.04	renal failure, unspecified	1,412	6,167
6	138.03	other complications of certain specified medical procedures	2,998	6,157
6	107	KIDNEY INFECTION	319	6,154
6	62.05	autonomic nerve disorder	740	6,149
6	89.06	vascular insufficiency of intestines	489	6,145
6	143	HISTORY OF DISEASE/AFTERCARE/SCREENING	570	6,141
6	138.01	malfunction of internal orthopedic device/graft	1,081	6,131

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
6	117.01	chronic ulcer of skin	10,017	6,119
6	12.05	other leukemia	519	6,110
6	139.06	artificial opening status/attention	1,232	6,103
6	138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	1,987	6,097
6	111	OTHER URINARY DISORDERS	366	6,089
6	12.03	lymphoid leukemia	947	6,087
6	62.03	anterior horn cell disease	226	6,070
6	33	GASTRITIS/OTHER GASTRIC DISORDERS	964	6,065
6	63.05	cauda equina syndrome	1,768	6,026
6	78.01	ventric tachycardia	1,862	6,025
6	87.02	other aneurysm	1,006	6,010
6	66.02	inflammatory/toxic neuropathy	1,483	6,005
6	19.04	disseminated cancer	577	6,004
5	139.01	kidney, heart, heart valve (human [illegible] tissue), lung, liver transplant	133	5,536
5	58	NEUROTIC DISORDERS	145	5,535
5	98	VIRAL PNEUMONIA/INFLUENZA	134	5,425
5	59	SUBSTANCE ABUSE AND DEPENDENCE	315	5,347
5	9	RECTAL CANCER	125	5,268
5	18	OTHER CANCER	91	5,236
5	75	PULMONARY HEART DISEASE	121	5,181
5	120	GENERAL SYMPTOMS	283	5,175
5	81	OTHER CARDIAC DISEASE	69	5,161
5	59.02	drug dependence	261	5,146
5	91	HYPOTENSION (LOW BLOOD PRESSURE)	142	5,124
5	18.01	cancer of bone and articular cartilage	403	5,121
5	61	HEADACHES	90	5,102
5	121.01	coma	609	5,047
5	65	MONONEUROPATHY	87	5,044
5	83	PRECEREBRAL ARTERIAL OCCLUSION	571	5,040
5	30.01	cirrhosis	732	5,025
4	128.01	pelvic fracture	932	4,946
4	13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	178	4,850
4	129.01	femoral fracture	4,067	4,849
4	32.02	ulcer with perforation	378	4,824
4	8	COLON CANCER	323	4,817
4	47	BACK PAIN	1,415	4,785
4	85	TRANSIENT CEREBRAL ISCHEMIA	899	4,778
4	123.02	hemoptysis (coughing up blood)	864	4,766
4	90	THROMBOPHLEBITIS	395	4,761
4	89.03	peripheral vascular disease	10,704	4,761
4	136.01	third degree burns	119	4,758
4	15.02	cancer of testis/male genital organs	164	4,738
4	93.01	diabetic retinopathy	4,303	4,730
4	71	MYOCARDIAL INFARCTION	939	4,725
4	62.01	Parkinson's disease	4,310	4,705
4	86.01	atherosclerosis of major vessel	6,398	4,699
4	54.02	hallucinations, symptomatic	217	4,683
4	16.01	cancer of bladder/kidney/urinary organs	2,672	4,678
4	38.02	peritonitis	159	4,673
4	14.01	cancer of ovaries/placenta/uterine adnexia	471	4,663
4	28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	306	4,660
4	67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	1,265	4,652
4	7.03	cancer of small bowel	154	4,648
4	27.12	disorders of plasma protein metabolism	413	4,645
4	106.01	nephritis, dialysis encounter	579	4,645
4	5.02	cerebrovascular disease late effects	2,269	4,645
4	92.03	other circulatory disease/postphlebitic syndrome	1,978	4,643
4	84.01	cerebrovascular accident (stroke)	12,352	4,643
4	75.01	pulmonary embolism (blood clot)	590	4,641
4	129	FEMORAL FRACTURE	1,511	4,641
4	75.02	other pulmonary heart disease	1,602	4,635
4	119.01	spina bifida, other congenital anomalies of nervous system	389	4,634
4	38.01	intestinal obstruction	2,844	4,633
4	73.01	other acute ischemia	4,499	4,626
4	7.02	cancer of stomach	212	4,609
4	20.02	benign neoplasm of respiratory system	378	4,609

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
4	6.01	cancer of mouth/tongue	411	4,608
4	82	CEREBRAL HEMORRHAGE	107	4,607
4	71.02	old myocardial infarction	3,449	4,602
4	68.03	mitral/aortic valve disorders	1,690	4,601
4	43	GOUT/ARTHROPATHY/DERANGEMENTS	211	4,600
4	134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	242	4,598
4	89.04	other arterial disease	2,164	4,584
4	105.01	respiratory failure	4,344	4,568
4	63.08	other central nervous system disorders	407	4,552
4	31	DISEASES OF ESOPHAGUS	457	4,550
4	28.02	chronic pancreatitis/other pancreatic diseases	1,044	4,547
4	71.01	myocardial infarction	2,915	4,528
4	77	ATRIAL ARRYTHMIA	908	4,513
4	24.03	diabetes with unspecified complications	5,009	4,494
4	139.04	joint replacement	2,281	4,491
4	12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	1,226	4,480
4	119.03	congenital anomalies of cardiac/circulatory systems	3,130	4,477
4	15.01	prostate cancer	7,860	4,474
4	52.01	senile/presenile psychoses	5,528	4,453
4	66.01	peripheral neuropathy	2,178	4,441
4	139.03	heart, heart valve replacement by artificial device	707	4,438
4	21.01	carcinoma in situ of digestive organs	575	4,425
4	15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	841	4,420
4	9.01	rectal cancer	2,123	4,408
4	32	ULCERS	873	4,403
4	143.14	care not delivered	704	4,403
4	18.02	cancer of connective and other soft tissue	429	4,402
4	20.05	benign neoplasm of urinary	392	4,401
4	139.07	postsurgical states, eye	128	4,399
4	76	RHYTHM AND CONDUCTION DISORDERS	910	4,392
4	17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	744	4,388
4	41.02	biliary tract disease	496	4,386
4	68.01	rheumatic fever/heart disease	1,107	4,385
4	106.05	impaired renal function	409	4,376
4	128	PELVIC FRACTURE	223	4,371
4	81.01	pericarditis, post-MI	546	4,337
4	39	DIVERTICULA OF INTESTINE	879	4,331
4	125.01	retention of urine	3,011	4,331
4	74.01	angina pectoris	18,698	4,330
4	83.01	precerebral arterial occlusion	5,977	4,328
4	139.05	other organ replacement	157	4,328
4	51.04	hemophilia and other coagulation defects	1,885	4,325
4	116.02	bullous dermatoses	358	4,324
4	51.05	purpura/thrombocytopathy/hemorrhagic conditions	1,111	4,323
4	27.04	adrenal gland disorders	491	4,320
4	37.01	regional enteritis (Crohn's disease)	683	4,311
4	56.01	manic and depressive disorders	5,315	4,310
4	52.02	other organic psychotic conditions	830	4,307
4	81.04	cardiomegaly (enlarged heart)	5,843	4,306
4	28.01	acute pancreatitis	933	4,302
4	85.01	transient cerebral ischemia	7,346	4,296
4	126.01	vertebral fracture without spinal cord injury	2,116	4,292
4	17.02	cancer of the brain/nervous system/pituitary, pineal glands	723	4,280
4	82.01	cerebral hemorrhage	837	4,278
4	134.03	accidental falls	4,290	4,267
4	52.03	cerebral degeneration/Alzheimer's disease	4,763	4,260
4	57.02	other nonorganic psychoses	3,825	4,260
4	121.02	syncope (fainting) and collapse	7,283	4,257
4	21.04	neoplasm of uncertain behavior, specified sites	2,698	4,251
4	33.01	pyloric/duodenal obstruction	186	4,233
4	4	OTHER INFECTIOUS AND PARASITIC DISEASES	471	4,191
4	77.01	atrial arrhythmia	12,779	4,188
4	81.03	cardiomyopathy/myocarditis	2,345	4,187
4	18.06	other/ill-defined site cancer	2,970	4,173
4	68.02	mitral or aortic valve/endocardia disease	11,084	4,168
4	96.01	emphysema/chronic bronchitis	33,471	4,162

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
4	140.01	rehabilitation procedures	2,861	4,160
4	131.05	fracture of rib, closed	2,423	4,160
4	81.05	other heart disease	5,650	4,159
4	89.01	specified peripheral vascular disease	961	4,155
4	143.09	prothesis/other device fitting, adjustment	716	4,151
4	123.01	dyspnea (labored breathing)/other resp abnormalities	18,621	4,143
4	8.01	colon cancer	2,729	4,143
4	109.02	hydronephrosis/other renal/urethral disorders	4,709	4,140
4	90.02	noninfectious lymphatic disorders	597	4,140
4	46	OSTEOARTHRITIS	2,055	4,140
4	123	RESPIRATORY/OTHER CHEST SYMPTOMS	138	4,135
4	102.03	respiratory conditions due to other external agents/postinflammatory fibrosis	2,478	4,126
4	40.03	intestinal abcess/ulceration/perforation	1,231	4,125
4	133	SPRAINS	389	4,121
4	62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	292	4,116
4	124	CARDIOVASCULAR SYMPTOMS	1,477	4,115
4	52.04	senility without psychosis	597	4,112
4	6.03	cancer of larynx	463	4,110
4	4.07	bacterial infection in other diseases	1,828	4,110
4	62.04	other spinal cord disease	447	4,108
4	44.01	systemic lupus erythematosus and other connective tissue disease	2,721	4,106
4	26.01	disorders of fluid/electrolyte/acid-base balance	10,971	4,106
4	103.01	pleurisy/pneumothorax	2,669	4,103
4	23.01	diabetes with acute complications	993	4,100
4	66.03	myoneural disorders/myasthenia gravis	267	4,099
4	139.08	other postsurgical states, including dialysis status	6,985	4,086
4	63.07	nervous/musculoskeletal system symptoms	3,661	4,083
4	131	FRACTURE/DISLOCATION	617	4,080
4	60.06	nonpsychotic organic brain syndrome	2,850	4,079
4	132.01	foreign body in pharynx/larynx	901	4,077
4	142.01	chemotherapy	539	4,074
4	102.01	bronchiectasis, lung diseases due to specified external agent	1,334	4,071
4	4.14	thrush	386	4,060
4	91.01	hypotension (low blood pressure)	1,838	4,058
4	132.03	gi/liver/kidney/spleen/pelvis injury	481	4,057
4	125.02	incontinence/urethral discharge	3,466	4,054
4	143.12	donor	166	4,049
4	71.03	other chronic ischemic heart disease	58,508	4,030
4	34.01	appendicitis	396	4,025
4	63.06	other paralytic disorders	342	4,023
4	[illegible]	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	712	4,023
4	44.02	rheumatoid arthritis and other inflammatory polyarthropathy	8,435	4,015
4	118.04	diseases of nail	21,071	4,011
4	139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	50	4,000
2	98.01	viral pneumonia	167	3,227
2	70.05	hypertension encephalopathy	74	3,092
2	48	DISORDERS OF SOFT TISSUES	74	3,071
2	131.01	shoulder dislocation	195	2,981
2	59.01	alcohol dependence	247	2,968
2	70.03	hypertensive heart and renal disease	219	2,958
2	119.04	congenital anomalies of musculoskeletal/limb	1,073	2,933
2	45.02	osteomyelitis	338	2,928
2	135.01	intracranial injury	479	2,927
2	27.15	other hyperalimentation	[illegible]	2,916
2	134.01	concussion	126	2,833
2	131.03	dislocation of knee	763	2,758
2	38.03	other peritoneal disorders	111	2,755
2	93.03	endophthalmitis (eye inflammation)	94	2,726
2	93	DISORDERS OF THE EYE AND ADNEXA	154	2,725
2	55.01	schizophrenic disorders	2,611	2,724
2	136.03	nerve injury	321	2,712
1	27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	1	2,710
2	60.07	depression, not elsewhere classified	1,777	2,660
2	70.02	malignant hypertensive heart disease	560	2,656
2	141.01	radiation therapy	201	2,652
2	45.01	arthropathy with infection	163	2,630

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
2	22.01	diabetes without complications	18,446	2,630
2	51.07	immune disorders	123	2,597
2	104.05	other lung disease	2,033	2,589
2	109.01	urethral stricture	951	2,587
2	41.01	cholelithiasis (gallstones)	1,048	2,583
2	51.08	other blood disease	851	2,576
2	11	BREAST CANCER	220	2,566
2	49.01	osteoporosis	2,619	2,564
2	100.02	other pneumonia	2,874	2,560
2	18.03	melanoma	339	2,540
2	65.05	other cranial nerve disorders	57	2,538
2	107.01	kidney infection	435	2,534
2	27.06	testicular dysfunction	114	2,530
2	63.01	multiple sclerosis, other central nervous system dymelination	363	2,525
2	21.03	carcinoma in situ of other sites	866	2,522
2	4.10	viral hepatitis	90	2,520
2	86.02	atherosclerosis/general, ascvd	4,213	2,511
2	46.01	osteoarthrosis	27,676	2,508
2	51.01	sickle cell and other hereditary hemolytic anemias	121	2,487
2	131.07	other fractures	1,610	2,486
2	93.08	vitreous hemorrhage	274	2,485
2	65.04	root/plexus lesions	180	2,479
2	49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	3,419	2,472
2	4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	7,055	2,461
2	95.08	salivary gland diseases	408	2,454
2	50.01	iron deficiency and other anemias	7,520	2,454
2	43.02	other arthropathy/joint disorders, derangements	24,228	2,445
2	4.01	bacterial enteritis (intestinal infections)	72	2,445
2	35.01	abdominal hernia, complicated	192	2,444
2	37.02	ulcerative colitis	284	2,439
2	125.04	abdominal/pelvis symptoms	14,744	2,434
2	60.11	other mental disorders	276	2,434
2	13.02	cancer of cervix/female genital organs	315	2,413
2	116.01	cellulitis/abscess/other local skin infection	6,799	2,413
2	111.01	other urinary disorders	4,175	2,411
2	119.05	congenital anomalies of skin	616	2,398
2	60.02	sexual deviations and disorders	395	2,389
2	92.01	superficial phlebitis-leg	255	2,384
2	76.01	conduction disorders/cardiac dysrhythmias	6,176	2,382
2	57.01	paranoid states	79	2,375
2	123.04	respiratory/other chest symptoms	3,588	2,371
2	11.01	breast cancer	3,531	2,370
2	60.05	adjustment reaction	614	2,364
2	25.02	other hypoglycemia	448	2,363
2	127.01	fractures of skull/face	178	2,361
2	41.03	other gallbladder disorders	1,333	2,357
2	92.04	other specified circulatory disorders	797	2,356
2	69.02	hypertensive heart disease	4,478	2,353
2	44.04	polymyalgia rheumatica	698	2,347
2	124.01	chest pain	14,015	2,338
2	42.01	gastrointestinal hemorrhage	3,040	2,337
2	76.02	premature heart beats	1,249	2,336
2	70.01	malignant hypertension	4,696	2,334
2	138.04	other complications of medical and surgical procedures, nec, (e.g., post-operative infection)	915	2,330
2	143.04	history of mental disorder/other disease	711	2,329
2	112.01	hyperplasia of prostate	10,057	2,328
2	27.13	disorders of mineral metabolism	502	2,325
2	47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	23,584	2,324
2	113.04	female stress incontinence	685	2,317
2	101.01	asthma	3,410	2,316
2	136.02	other burns	481	2,315
2	44.03	inflammatory spondylopathies	449	2,315
2	139.02	other organ transplant	129	2,313
2	60.04	acute reaction to stress	323	2,312
2	4.06	other bacterial infections	246	2,310
2	33.02	gastritis/other gastric disorder (stomach disorders)	14,974	2,306

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
2	32.01	ulcer without perforation	3,226	2,305
2	65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	1,565	2,300
2	40.04	other intestinal disorders	4,937	2,296
2	137.04	allergy, unspecified	1,482	2,296
2	90.01	phlebitis and thrombophlebitis	1,105	2,296
2	36.01	abdominal hernia/uncomplicated	5,444	2,291
1	20.06	benign neoplasm of eye	22	2,289
2	36	ABDOMINAL HERNIA/ UNCOMPLICATED	193	2,287
2	21.06	unspecified neoplasm	3,356	2,286
2	120.03	malaise and fatigue	6,230	2,284
2	31.01	disease of esophagus	4,554	2,280
2	40.02	anal/rectal disorders	4,531	2,276
2	95.04	larynx/vocal cord diseases	319	2,276
2	58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	5,495	2,272
2	27.08	miscellaneous endocrine disorders	390	2,272
2	20.01	benign neoplasm of digestive system	3,697	2,269
2	30.02	other liver disorders	871	2,262
2	112.03	penis/testis/male genital organs disorders	1,916	2,260
2	43.01	gout/crystal arthropathy	3,149	2,253
2	49.03	flat foot, acquired deformities of toe	2,650	2,252
2	112.02	other prostatic disorders	3,463	2,251
2	130.01	fractures of lower limb	1,917	2,249
2	95.07	other diseases of upper respiratory system	2,905	2,248
2	110.01	cystitis, other urinary tract infections	15,771	2,248
2	104.02	pulmonary congestion/hypostasis	779	2,241
1	1.01	central nervous system infection (e.g., meningitis)	12	2,240
2	13.01	cancer of uterus	428	2,238
2	134.02	contusion/superficial injury	10,687	2,238
2	119.07	other congenital anomalies	927	2,236
2	65.01	trigeminal nerve disorder	296	2,234
2	95.09	oral soft tissue/tongue/jaw disorders	1,120	2,231
2	120.02	dizziness and giddiness	6,184	2,223
2	113	DISEASES OF FEMALE GENITAL ORGANS	91	2,219
2	122.01	fever	858	2,216
2	4.02	viral enteritis (intestinal infections)	381	2,216
2	65.03	root/plexus disorders	120	2,212
2	62.02	Huntington's Disease, other abnormal movement disorders	521	2,210
1	27.14	cystic fibrosis, metabolism disorders, nec/nos	26	2,208
2	48.01	disorders of soft tissue	24,722	2,191
2	61.01	headaches, including migraine	5,394	2,184
2	120.04	other general symptoms	22,457	2,183
2	108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	1,229	2,176
2	92.02	varicose veins	1,744	2,174
1	131.04	other dislocations	267	2,173
2	137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	420	2,171
2	39.01	diverculа of intestine	7,200	2,171
2	124.02	other cardiovascular symptoms	3,433	2,168
2	133.01	sprains	11,805	2,160
2	93.04	retinal disorders	14,944	2,158
2	18.04	skin cancer, except melanoma	8,030	2,153
2	97.01	other bronchitis	18,130	2,150
2	132.04	open wound of eye	177	2,149
2	65.07	neuropathy of leg	1,148	2,143
2	59.03	non-dependent abuse of drugs	467	2,141
2	27.10	vitamin/other nutritional deficiencies	925	2,138
2	98.02	influenza	2,785	2,137
2	132.06	open wound of other sites	3,267	2,134
2	143.03	history of malignant neoplasm	2,894	2,134
2	113.01	diseases of female pelvic organs	1,232	2,132
2	94.01	impacted earwax	8,409	2,131
2	132.02	heart/lung/blood vessels injury	67	2,130
2	143.01	infectious disease contact/carrier	201	2,129
2	123.03	cough	4,763	2,126
2	131.06	hand/wrist/lower arm fracture	2,001	2,125
2	125.03	other urinary system symptoms	4,033	2,122
2	51.06	white blood cell disorders	354	2,117

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
2	94.05	other ear disorders	6,005	2,115
2	127.02	fractures of nasal bone	131	2,115
2	27.07	other endocrine disorders	728	2,106
2	64.01	epilepsy and other seizure disorders	2,725	2,105
2	137.05	adverse effects of drugs in therapeutic use	1,152	2,102
2	93.05	glaucoma	18,478	2,086
2	49.04	other acquired limb deformities	602	2,085
2	5.03	injury late effects	208	2,084
2	21.05	neoplasm of uncertain behavior neo/nos	3,872	2,084
2	143.10	other orthopedic aftercare	275	2,082
2	4.11	other viral infections	4,150	2,073
2	137.01	poisoning by prescription or over-the-counter medications	307	2,072
1	7.06	other cancer of digestive organs/peritoneum	2	2,065
2	18.05	thyroid/endocrine cancer	88	2,063
2	95.03	chronic sinusitis	5,927	2,062
2	60.08	behavior disorder	136	2,056
2	118.02	psoriasis and similar disorders	1,365	2,042
2	20.07	other benign neoplasms	3,116	2,037
2	132.09	foreign body in eye/ear/nose	890	2,030
2	69.01	essential hypertension	70,511	2,030
2	132.05	open wound/injury of lower arm	4,094	2,029
2	93.06	cataract/lens replacement	57,176	2,028
2	95.02	nasal polyps/allergic rhinitis	7,175	2,010
2	120.01	somatic/segmental dysfunction	4,330	2,009
2	143.08	elective surgery	73	2,008
2	5.01	infection late effects	111	2,006
1	4.09	herpes simplex	32	1,998
1	115.01	pregnancy/birth complications, mother/child	58	1,994
1	94	EAR DISORDERS	1	1,752
1	4.05	strep throat/scarlet fever	28	1,737
1	89.02	Raynaud's syndrome	14	1,590
1	40.01	hemorrhoids	141	1,470
1	95.01	acute nose/throat infection	1,555	1,379
1	93.09	other eye disorders	3,163	1,378
1	0	NO CLAIMS IN ANY DATA	74,969	1,334
1	115.02	pregnancy with abortive outcome	1	1,293
1	94.04	hearing loss	287	1,286
1	143.02	vaccination, medical exam, other preventive	2,602	1,266
1	114.01	genital prolapse	133	1,258
1	118.03	other dermatosis	1,039	1,189
1	95.06	disorders of teeth and jaw	131	1,168
1	118.05	other dermatological disorders	1,976	1,156
1	4.15	mycoses (fungal diseases), miscellaneous	21	1,107
1	94.02	otitis media (middle ear infection)	365	1,098
1	66.05	other neuropathy	7	1,088
1	134.05	other accidents	29	1,087
1	4.16	other infections	105	1,077
1	119.02	congenital anomalies of eye	57	1,053
1	21.02	carcinoma in situ of respiratory system	3	1,049
1	94.03	vertiginous syndromes	133	1,046
1	89.05	disease of capillaries	18	1,035
1	143.05	history of drug allergy/other health hazard	58	991
1	27.02	thyrotoxicosis	71	988
1	143.17	screening/observation/special exams	1,964	986
1	20.03	benign neoplasm of skin	393	972
1	27.05	ovarian dysfunction	47	938
1	4.08	herpes zoster	209	931
1	27.01	goiter	50	917
1	113.05	menopausal and postmenopausal disorders	692	906
1	27.03	thyroid disorders	488	872
1	60.01	personality disorders	33	871
1	93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	813	828
1	4.03	other intestinal infections	18	810
1	20.04	benign neoplasm of breast	1,556	806
1	115.03	normal pregnancy/delivery	12	789
1	27.11	disorders of lipoid metabolism (high cholesterol)	1,313	768

TABLE C-4

SORTING ALGORITHM OUTPUT FOR EXPANDED DCG MODEL WITH PROCEDURES
(PRINCIPAL INPATIENT DIAGNOSES ARE IN UPPER CASE)

EDCGP	EDXGP	LABEL	FREQUENCY	MEAN
1	143.06	family history of disease	95	749
1	63.02	Infantile cerebral palsy	64	743
1	113.02	vaginal and cervical diseases	296	723
1	137.03	poisoning by other nonmedicinal substances	91	699
1	113.03	other diseases of female genital organs	128	683
1	90.04	compression of vein	1	606
1	60.10	mental retardation	218	606
1	70.04	secondary hypertension	7	587
1	143.16	screening for malignant neoplasm	569	586
1	143.15	administrative/consultation	43	585
1	115	PREGNANCY/PERINATAL CONDITIONS	10	579
1	100.01	specific bacterial pneumonia	5	544
1	4.04	tuberculosis	15	457
1	143.11	aftercare	19	440
1	119.06	chromosomal anomalies	59	428
1	65.02	facial nerve disorders	21	372
1	27.16	obesity/localized adiposity	40	322
1	143.07	problems of internal organs/external site	9	280
1	60.09	developmental behavioral disorders	15	202
1	20	BENIGN NEOPLASMS	1	167
1	132.08	crushing injury	5	166
1	79.01	heart arrest/shock	9	164
1	17.01	cancer of the eye	5	155
1	95	NOSE/ THROAT DISEASES	1	137
1	6.04	other respiratory/intrathoracic cancer	6	133
1	118.01	dermatitis due to internal agent	6	132
1	143.13	household/family/other psychosocial circumstances	3	101
1	136.04	early complications of trauma	7	99
1	114	GENITAL PROLAPSE	3	85
1	60.03	psychophysiologic disorders	9	61
1	138.05	misadventure to patient in surgery	1	1
1	81.02	acute endo/myocarditis	1	0

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column

SOURCE: 1992 (expenditures) and 1991 (diagnoses and procedures) Medicare claims

TABLE C-5

SORTING ALGORITHM OUTPUT FOR CONCURRENT PRINCIPAL INPATIENT DCG MODEL

DCG	PIPDXG	LABEL	FREQUENCY	MEAN
35	68	VALVULAR AND RHEUMATIC HEART DISEASE	791	$39,750
35	105	RESPIRATORY FAILURE/ARREST	1,746	37,674
35	12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	827	35,017
31	7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	966	33,474
31	79	HEART ARREST/ SHOCK	282	32,675
31	117	CHRONIC ULCER OF SKIN	1,125	32,587
31	142	CHEMOTHERAPY	843	32,518
31	29	END STAGE LIVER DISORDERS	272	32,412
31	87	ANEURYSM	1,016	32,306
0	3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	16	32,281
31	17	NEOPLASM OF NERVOUS SYSTEM	332	31,675
31	19	SECONDARY CANCERS	2,419	31,665
31	102	LUNG DISEASES DUE TO EXTERNAL AGENTS	1,632	31,625
31	140	REHABILITATION PROCEDURES	4,269	31,435
27	5	LATE EFFECTS	235	27,848
27	88	ARTERIAL EMBOLISM AND THROMBOSIS	888	27,190
27	89	PERIPHERAL VASCULAR DISEASE	1,054	27,115
23	10	LUNG CANCER	1,400	26,780
23	71	MYOCARDIAL INFARCTION	3,763	26,309
23	139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	507	26,255
23	136	BURNS/NERVE, SPINAL CORD INJURES	145	26,125
23	106	RENAL FAILURE	845	26,022
23	6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	261	25,866
23	22	DIABETES WITHOUT COMPLICATIONS	380	25,745
23	45	ARTHROPATHY/BONE INFECTION	378	25,491
23	104	OTHER LUNG DISEASE	568	25,367
23	78	VENTRICULAR TACHYCARDIA	476	25,303
23	1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS)	109	24,785
23	99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	1,846	24,480
23	81	OTHER CARDIAC DISEASE	626	24,445
23	141	RADIOTHERAPY	81	24,361
23	86	ATHEROSCLEROSIS	648	24,099
23	138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	3,729	24,076
23	2	SEPTICEMIA/SHOCK	2,878	23,842
23	67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE,	157	23,762
23	119	CONGENITAL ANOMALIES	146	23,624
23	135	INTRACRANIAL INJURY	392	23,206
23	82	CEREBRAL HEMORRHAGE	900	23,177
20	9	RECTAL CANCER	447	21,498
20	8	COLON CANCER	1,199	21,424
20	14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	121	21,248
17	129	FEMORAL FRACTURE	4,224	19,337
17	30	OTHER LIVER DISORDERS	357	18,754
17	51	OTHER BLOOD DISEASES	515	18,557
17	66	POLYNEUROPATHY	140	18,481
17	72	ACUTE MYOCARDIAL INFARCTION	5,186	18,355
17	37	REGIONAL ENTERITIS	194	17,803
17	75	PULMONARY HEART DISEASE	616	17,646
17	103	PLEURISY/PNEUMOTHORAX	515	17,351
17	63	OTHER NEUROLOGIC DISORDERS	354	17,247
17	56	MANIC AND DEPRESSIVE DISORDERS	2,284	17,071
14	46	OSTEOARTHRITIS	3,099	16,194
14	44	CONNECTIVE TISSUE DISEASES	433	16,039
14	16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	793	16,008
14	84	CEREBROVASCULAR DISEASE	5,009	15,620
14	127	FRACTURES OF SKULL/FACE/NASAL BONE	109	15,254
14	49	OTHER BONE DISORDERS	1,227	15,048
14	143	HISTORY OF DISEASE/AFTERCARE/SCREENING	586	15,014

TABLE C-5

SORTING ALGORITHM OUTPUT FOR CONCURRENT PRINCIPAL INPATIENT DCG MODEL

DCG	PIPDXG	LABEL	FREQUENCY	MEAN
14	80	HEART FAILURE	7,942	15,004
14	38	PERITONITIS/INTESTINAL OBSTRUCTION	2,102	14,916
14	96	EMPHYSEMA/CHRONIC BRONCHITIS	3,410	14,884
14	21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	403	14,679
14	24	DIABETES WITH CHRONIC COMPLICATIONS	1,619	14,492
14	54	DELIRIUM/HALLUCINATIONS	350	14,447
14	28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	740	14,405
14	43	GOUT/ARTHROPATHY/DERANGEMENTS	463	14,402
14	62	DEGENERATIVE NEUROLOGIC DISORDERS	360	14,376
14	4	OTHER INFECTIOUS AND PARASITIC DISEASES	1,150	14,321
14	26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	3,098	14,272
14	18	OTHER CANCER	305	14,266
14	69	HYPERTENSION, UNCOMPLICATED	1,131	14,032
12	55	SCHIZOPHRENIC DISORDERS	1,325	12,662
12	13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	376	12,599
12	73	OTHER ACUTE ISCHEMIA	4,415	12,310
12	35	ABDOMINAL HERNIA/ COMPLICATED	291	12,113
10	83	PRECEREBRAL ARTERIAL OCCLUSION	1,013	11,453
10	52	DEMENTIA	857	11,315
10	27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	471	11,205
10	15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	1,613	11,118
10	64	EPILEPSY AND OTHER SEIZURE DISORDERS	788	10,997
10	100	BACTERIAL PNEUMONIA	5,056	10,992
10	47	BACK PAIN	1,961	10,966
10	110	OTHER URINARY TRACT INFECTIONS	1,968	10,755
10	32	ULCERS	1,658	10,698
10	76	RHYTHM AND CONDUCTION DISORDERS	1,972	10,657
10	42	GASTROINTESTINAL HEMORRHAGE	1,010	10,652
10	109	OTHER RENAL/URETERAL DISEASES	202	10,597
10	132	INTERNAL AND/OR OPEN WOUND	389	10,501
10	50	ANEMIA	542	10,456
10	92	OTHER CIRCULATORY DISEASE	306	10,452
10	41	GALLBLADDER DISORDERS	2,841	10,386
10	58	NEUROTIC DISORDERS	217	10,357
10	98	VIRAL PNEUMONIA/INFLUENZA	176	10,355
10	118	OTHER DEMATOLOGICAL DISORDERS	131	10,264
10	128	PELVIC FRACTURE	412	10,217
10	65	MONONEUROPATHY	134	10,204
10	101	ASTHMA	982	10,175
10	126	VERTEBRAL INJURY	399	10,173
10	20	BENIGN NEOPLASMS	689	10,055
10	40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	1,300	10,037
10	34	APPENDICITIS	198	10,007
8	130	LOWER LIMB FRACTURES	625	8,972
8	23	DIABETES WITH ACUTE COMPLICATIONS	189	8,669
8	116	DERMATOLOGICAL DISORDERS	1,315	8,597
8	25	HYPOGLYCEMIA	239	8,526
8	39	DIVERTICULA OF INTESTINE	1,458	8,320
8	70	HYPERTENSION, COMPLICATED	417	8,297
8	131	FRACTURE/DISLOCATION	810	8,228
8	60	OTHER MENTAL DISORDERS	363	8,052
8	11	BREAST CANCER	1,098	8,048
8	59	SUBSTANCE ABUSE AND DEPENDENCE	45[illegible]	8,031
7	57	PARANOIA AND OTHER PSYCHOSES	298	7,771
7	33	GASTRITIS/OTHER GASTRIC DISORDERS	1,110	7,730
7	111	OTHER URINARY DISORDERS	298	7,645
7	90	THROMBOPHLEBITIS	718	7,385
7	107	KIDNEY INFECTION	335	7,336

TABLE C-5

SORTING ALGORITHM OUTPUT FOR CONCURRENT PRINCIPAL INPATIENT DCG MODEL

DCG	PIPDXG	LABEL	FREQUENCY	MEAN
7	122	FEVER	164	7,234
7	97	OTHER BRONCHITIS	766	7,104
7	31	DISEASES OF ESOPHAGUS	651	7,104
7	137	POISONING/TOXIC EFFECTS	343	7,045
6	113	DISEASES OF FEMALE GENITAL ORGANS	497	6,683
6	108	RENAL/URETERAL/BLADDER CALCULUS	549	6,670
6	48	DISORDERS OF SOFT TISSUES	342	6,530
6	91	HYPOTENSION (LOW BLOOD PRESSURE)	269	6,516
6	36	ABDOMINAL HERNIA/ UNCOMPLICATED	1,024	6,488
6	77	ATRIAL ARRHYTHMIA	1,781	6,463
6	134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	306	6,354
6	95	NOSE/ THROAT DISEASES	329	6,301
6	93	DISORDERS OF THE EYE AND ADNEXA	680	6,277
6	53	SUBSTANCE-RELATED PSYCHOSES	135	6,227
6	125	URINARY SYSTEM/ABDOMINAL PELVIS SYMPTOMS	511	6,195
6	133	SPRAINS	399	6,178
6	61	HEADACHES	88	6,176
6	120	GENERAL SYMPTOMS	373	6,129
6	74	ANGINA PECTORIS	999	6,022
5	112	PROSTATE/TESTICULAR/PENILE DISORDERS	2,255	5,644
5	123	RESPIRATORY/OTHER CHEST SYMPTOMS	219	5,448
5	85	TRANSIENT CEREBRAL ISCHEMIA	1,310	5,427
5	121	COMA/ SYNCOPE	1,206	5,382
5	114	GENITAL PROLAPSE	948	5,269
4	124	CARDIOVASCULAR SYMPTOMS	1,827	4,218
0	94	EAR DISORDERS	306	3,920
0	115	PREGNANCY/PERINATAL CONDITIONS	93	3,572
0	0	NO INPATIENT CLAIMS	535,521	816

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column.

SOURCE: 1992 (expenditures) and 1991 (diagnoses and procedures) Medicare claims.

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
40	139.09	aspirator, respirator, other machine dependence	380	$71,286
40	104.04	post trauma/surgery pulmonary insufficiency	1,855	42,967
40	105.02	respiratory arrest	4,212	40,009
27	38.02	peritonitis	1,058	28,723
27	138.02	infection/inflammation due to internal device/graft	1,801	28,266
27	106.02	acute renal failure	4,025	27,627
23	102.02	aspiration pneumonia	3,016	25,528
23	89.07	gangrene	2,912	23,918
23	99.01	gram-negative/staph pneumonia	3,154	23,562
20	19.02	secondary cancer of respiratory and digestive systems	5,158	21,565
20	[illegible]	septicemia/shock	7,107	20,144
17	104.03	acute lung edema nos	1,892	18,753
17	72.01	acute myocardial infarction	7,170	17,871
17	131.02	dislocation of hip	398	17,670
17	138.05	misadventure to patient in surgery	959	17,400
14	134.04	suicide/self-inflicted injury	237	16,517
14	27.09	protein-calorie malnutrition	3,823	16,384
14	143.12	donor	297	15,759
14	138.04	other complications of medical and surgical procedures nec, (e.g., post-operative infection)	11,367	15,446
14	84.03	aphasia (loss of language skills/comprehension)	1,760	15,353
14	19.01	secondary cancer of lymph node	1,612	15,193
14	84.02	hemiplegia (paralysis of one side of body)	5,748	14,944
14	140.01	rehabilitation procedures	8,831	14,941
14	138.03	other complications of certain specified medical procedures	4,569	14,405
14	29.01	end stage liver disorders	710	14,062
14	7.05	cancer of pancreas	545	14,062
10	53.02	drug psychoses	664	10,999
10	59.02	drug dependence	692	10,740
10	51.03	aplastic anemia	1,180	10,642
10	103.01	pleurisy/pneumothorax	8,490	10,566
10	19.03	secondary cancer of other site	3,405	10,471
10	54.01	delirium/delusions/hallucinations	2,846	10,207
10	12.04	myeloid leukemia	389	10,130
10	21.02	carcinoma in situ of respiratory system	470	10,007
8	129.01	femoral fracture	6,486	9,198
8	139.04	joint replacement	3,054	9,003
8	4.07	bacterial infection in other diseases	5,026	8,989
8	[illegible]	vascular insufficiency of intestines	685	8,880
8	38.03	other peritoneal disorders	770	8,816
8	41.02	biliary tract disease	800	8,533
8	78.01	ventric tachycardia	2,452	8,426
8	121.01	coma	1,350	8,407
8	53.01	alcoholic psychoses	601	8,375
8	75.01	pulmonary embolism (blood clot)	1,422	8,363
8	38.01	intestinal obstruction	6,212	8,121
8	60.01	personality disorders	1,338	8,121
8	33.01	pyloric/duodenal obstruction	407	8,119
8	128.01	pelvic fracture	1,600	8,028
7	73.01	other acute ischemia	10,902	7,105
6	100.01	specific bacterial pneumonia	1,299	6,745
6	139.07	postsurgical states, eye	138	6,378
6	63.03	quadriplegia	270	6,348
6	82.01	cerebral hemorrhage	1,482	6,281
6	141.01	radiation therapy	1,805	6,169
6	105.01	respiratory failure	7,962	6,122
6	29.02	esophageal varices	192	6,102
6	139.06	artificial opening status/attention	1,101	6,087
5	28.01	acute pancreatitis	963	5,558
5	88.01	arterial embolism and thrombosis (blood clots)	2,437	5,361

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
5	136.01	third degree burns	162	5,332
5	25.01	hypoglycemic coma	282	5,271
5	125.01	retention of urine	3,733	5,219
5	26.01	disorders of fluid/electrolyte/acid-base balance	17,771	5,168
5	3.01	HIV/AIDS (including pneumocytosis)	196	5,144
5	7.04	cancer of liver	150	5,098
5	4.01	bacterial enteritis (intestinal infections)	442	5,082
5	7.02	cancer of stomach	296	5,056
4	57.01	paranoid states	381	4,469
4	63.04	paraplegia	270	4,347
4	54.02	hallucinations, symptomatic	275	4,291
4	63.08	other central nervous system disorders	447	4,201
4	138.01	malfunction of internal orthopedic device/graft	322	4,156
4	132.07	traumatic amputation of limb/hand/foot/toe	396	4,145
4	142.01	chemotherapy	751	4,116
4	67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	1,580	4,101
4	21.01	carcinoma in situ of digestive organs	519	4,042
4	59.01	alcohol dependence	1,059	4,007
3	34.01	appendicitis	244	3,889
3	68.03	mitral/aortic valve disorders	2,379	3,859
3	15.02	cancer of testis/male genital organs	184	3,745
3	62.04	other spinal cord disease	413	3,715
3	132.02	heart/lung/blood vessels injury	305	3,694
3	106.01	nephritis, dialysis encounter	802	3,675
3	62.05	autonomic nerve disorder	637	3,633
3	63.06	other paralytic disorders	369	3,619
3	41.03	other gallbladder disorders	3,804	3,618
3	52.02	other organic psychotic conditions	1,023	3,612
3	7.03	cancer of small bowel	118	3,581
3	75.02	other pulmonary heart disease	2,000	3,563
3	143.14	care not delivered	704	3,563
3	143.08	elective surgery	166	3,547
3	126.02	vertebral fracture with spinal cord injury	220	3,525
3	6.04	other respiratory/intrathoracic cancer	168	3,512
3	139.03	heart, heart valve replacement by artificial device	1,057	3,504
3	137.01	poisoning by prescription or over-the-counter medications	1,343	3,502
3	81.04	cardiomegaly (enlarged heart)	7,258	3,497
3	104.01	empyema/abscess of lung	209	3,486
3	20.05	benign neoplasm of urinary	455	3,480
3	79.01	heart arrest/shock	2,025	3,478
3	24.01	diabetes with renal manifestation	547	3,464
3	98.01	viral pneumonia	684	3,453
3	66.02	inflammatory/toxic neuropathy	1,356	3,452
3	41.01	cholelithiasis (gallstones)	3,223	3,448
3	19.04	disseminated cancer	351	3,433
3	10.01	lung cancer	1,451	3,433
3	62.03	anterior horn cell disease	179	3,423
3	106.03	chronic renal failure	1,369	3,400
3	90.03	hemorrhage nos	359	3,378
3	68.01	rheumatic fever/heart disease	1,444	3,375
3	139.08	other postsurgical states, including dialysis status	7,313	3,372
3	56.01	manic and depressive disorders	6,461	3,365
3	81.01	pericarditis, post-MI	572	3,334
3	51.02	acquired hemolytic anemia	194	3,319
3	21.03	carcinoma in situ of other sites	2,253	3,315
3	81.03	cardiomyopathy/myocarditis	3,977	3,309
3	27.12	disorders of plasma protein metabolism	545	3,303
3	104.05	other lung disease	7,708	3,296
3	20.02	benign neoplasm of respiratory system	447	3,269

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
3	87.02	other aneurysm	601	3,262
3	91.01	hypotension (low blood pressure)	2,198	3,255
3	17.02	cancer of the brain/nervous system/pituitary, pineal glands	747	3,237
3	70.05	hypertension encephalopathy	471	3,226
3	122.01	fever	3,288	3,225
3	12.02	multiple myeloma	395	3,208
3	55.01	schizophrenic disorders	5,374	3,188
3	132.03	gi/liver/kidney/spleen/pelvis injury	326	3,180
3	21.04	neoplasm of uncertain behavior, specified sites	2,841	3,171
3	5.02	cerebrovascular disease late effects	3,142	3,148
3	18.06	other/ill-defined site cancer	2,777	3,141
3	17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	811	3,136
3	27.04	adrenal gland disorders	491	3,132
3	143.10	other orthopedic aftercare	788	3,128
3	143.09	prothesis/other device fitting, adjustment	776	3,125
3	18.01	cancer of bone and articular cartilage	381	3,125
3	121.02	syncope (fainting) and collapse	8,313	3,124
3	95.05	paralysis of vocal cords/larynx	181	3,118
3	139.05	other organ replacement	140	3,113
3	6.02	cancer of pharynx	224	3,110
3	93.08	vitreous hemorrhage	881	3,110
3	83.01	precerebral arterial occlusion	7,800	3,103
3	40.03	intestinal abcess/ulceration/perforation	1,125	3,101
3	143.13	household/family/other psychosocial circumstances	262	3,088
3	89.04	other arterial disease	2,653	3,083
3	126.01	vertebral fracture without spinal cord injury	2,303	3,081
3	139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	186	3,077
3	5.03	injury late effects	593	3,075
3	12.05	other leukemia	390	3,069
3	106.04	renal failure, unspecified	1,255	3,067
3	135.01	intracranial injury	1,913	3,063
3	127.01	fractures of skull/face	556	3,027
3	87.01	aortic aneurysm	2,810	3,023
3	51.04	hemophilia and other coagulation defects	2,402	3,021
3	24.03	diabetes with unspecified complications	6,883	3,020
3	90.02	noninfectious lymphatic disorders	702	3,017
2	7.01	cancer of esophagus	62	2,277
2	63.05	cauda equina syndrome	752	2,141
2	131.03	dislocation of knee	1,273	2,080
2	143.07	problems of internal organs/external sites	421	2,073
2	63.01	multiple sclerosis, other central nervous system dymelination	648	2,043
2	35.01	abdominal hernia, complicated	385	2,036
2	51.07	immune disorders	157	2,025
1	66.04	muscular dystrophies	218	1,978
1	6.01	cancer of mouth/tongue	259	1,952
1	49.04	other acquired limb deformities	1,272	1,922
1	131.01	shoulder dislocation	320	1,908
1	109.02	hydronephrosis/other renal/urethral disorders	2,963	1,890
1	117.01	chronic ulcer of skin	5,313	1,888
1	15.01	prostate cancer	5,656	1,881
1	139.02	other organ transplant	326	1,849
1	16.01	cancer of bladder/kidney/urinary organs	1,693	1,836
1	93.02	proliferative diabetic retinopathy	529	1,829
1	45.01	arthropathy with infection	336	1,825
1	45.02	osteomyelitis	863	1,821
1	5.01	infection late effects	175	1,812
1	143.04	history of mental disorder/other disease	1,632	1,812
1	9.01	rectal cancer	1,198	1,808
1	119.01	spina bifida, other congenital anomalies of nervous system	271	1,807

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	8.01	colon cancer	1,589	1,806
1	18.02	cancer of connective and other soft tissue	265	1,802
1	42.01	gastrointestinal hemorrhage	6,783	1,794
1	17.01	cancer of the eye	125	1,776
1	102.03	respiratory conditions due to other external agents/postinflammatory fibrosis	1,299	1,772
1	71.02	old myocardial infarction	2,042	1,767
1	90.01	phlebitis and thrombophlebitis	3,085	1,765
1	115.03	normal pregnancy/delivery	149	1,758
1	123.01	dyspnea (labored breathing)/other resp abnormalities	12,495	1,757
1	71.01	myocardial infarction	1,543	1,743
1	108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	2,240	1,738
1	100.02	other pneumonia	6,702	1,735
1	113.04	female stress incontinence	1,653	1,735
1	104.02	pulmonary congestion/hypostasis	1,924	1,732
1	1.01	central nervous system infection (e.g., meningitis)	411	1,732
1	109.01	urethral stricture	1,933	1,729
1	4.06	other bacterial infections	323	1,700
1	12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	858	1,698
1	84.01	cerebrovascular accident (stroke)	7,680	1,695
1	24.02	diabetes with other specified complications	2,369	1,682
1	32.02	ulcer with perforation	195	1,681
1	21.06	unspecified neoplasm	6,282	1,677
1	113.01	diseases of female pelvic organs	1,725	1,666
1	132.01	foreign body in pharynx/larynx	566	1,666
1	125.02	incontinence/urethral discharge	2,574	1,666
1	119.04	congenital anomalies of musculoskeletal/limb	2,086	1,665
1	14.01	cancer of ovaries/placenta/uterine adnexia	254	1,662
1	92.03	other circulatory disease/postphlebitic syndrome	1,196	1,657
1	20.01	benign neoplasm of digestive system	7,029	1,651
1	80.01	heart failure	15,041	1,651
1	143.11	aftercare	1,554	1,646
1	27.13	disorders of mineral metabolism	1,017	1,643
1	111.01	other urinary disorders	8,982	1,635
1	51.05	purpura/thrombocytopathy/hemorrhagic conditions	944	1,625
1	85.01	transient cerebral ischemia	3,806	1,623
1	37.02	ulcerative colitis	530	1,619
1	7.06	other cancer of digestive organs/peritoneum	116	1,611
1	4.14	thrush	302	1,610
1	4.10	viral hepatitis	185	1,602
1	134.03	accidental falls	2,450	1,590
1	50.01	iron deficiency and other anemias	16,967	1,585
1	51.06	white blood cell disorders	886	1,585
1	116.02	bullous dermatoses	271	1,584
1	137.05	adverse effects of drugs in therapeutic use	2,919	1,583
1	49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	6,704	1,581
1	92.04	other specified circulatory disorders	2,527	1,579
1	119.07	other congenital anomalies	1,805	1,577
1	93.03	endophthalmitis (eye inflammation)	152	1,572
1	81.05	other heart disease	2,764	1,571
1	77.01	atrial arrhythmia	9,784	1,566
1	118.01	dermatitis due to internal agent	508	1,566
1	32.01	ulcer without perforation	6,746	1,566
1	63.07	nervous/musculoskeletal system symptoms	2,458	1,555
1	52.03	cerebral degeneration/Alzheimer's disease	3,269	1,552
1	90.04	compression of vein	211	1,547
1	106.05	impaired renal function	260	1,547
1	20.07	other benign neoplasms	5,279	1,546
1	57.02	other nonorganic psychoses	2,756	1,546
1	66.01	peripheral neuropathy	1,713	1,541

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	68.02	mitral or aortic valve/endocardia disease	6,909	1,537
1	131.07	other fractures	2,831	1,536
1	123.04	respiratory/other chest symptoms	7,436	1,534
1	92.02	varicose veins	3,833	1,525
1	65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	2,833	1,525
1	13.01	cancer of uterus	663	1,520
1	28.02	chronic pancreatitis/other pancreatic diseases	482	1,514
1	12.03	lymphoid leukemia	415	1,511
1	92.01	superficial phlebitis-leg	630	1,512
1	36.01	abdominal hernia/uncomplicated	10,714	1,511
1	1[illegible]03	history of malignant neoplasm	6,711	1,506
1	65.05	other cranial nerve disorders	89	1,499
1	132.04	open wound of eye	286	1,499
1	66.05	other neuropathy	279	1,494
1	123.02	hemoptysis (coughing up blood)	571	1,494
1	23.01	diabetes with acute complications	739	1,490
1	25.02	other hypoglycemia	900	1,489
1	130.01	fractures of lower limb	2,996	1,487
1	86.01	atherosclerosis of major vessel	5,015	1,484
1	96.01	emphysema/chronic bronchitis	24,895	1,483
1	52.01	senile/presenile psychoses	4,561	1,481
1	62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	170	1,477
1	30.02	other liver disorders	1,626	1,475
1	51.08	other blood disease	1,798	1,474
1	89.01	specified peripheral vascular disease	673	1,472
1	115.01	pregnancy/birth complications, mother/child	1,295	1,466
1	81.02	acute endo/myocarditis	104	1,464
1	76.02	premature heart beats	3,601	1,463
1	70.03	hypertensive heart and renal disease	582	1,463
1	27.15	other hyperalimentation	176	1,457
1	124.01	chest pain	30,837	1,454
1	74.01	angina pectoris	12,357	1,448
1	134.01	concussion	214	1,446
1	4.12	late syphilis, symptomatic	82	1,443
1	27.08	miscellaneous endocrine disorders	715	1,440
1	101.01	asthma	8,720	1,440
1	65.07	neuropathy of leg	2,551	1,435
1	[illegible]05	adjustment reaction	1,069	1,432
1	136.04	early complications of trauma	233	1,432
1	102.01	bronchiectasis, lung diseases due to specified external agent	877	1,426
1	89.03	peripheral vascular disease	8,634	1,424
1	76.01	conduction disorders/cardiac dysrhythmias	16,268	1,418
1	37.01	regional enteritis (Crohn's disease)	488	1,415
1	107.01	kidney infection	796	1,415
1	62.01	Parkinson's disease	3,225	1,414
1	114.01	genital prolapse	3,864	1,408
1	49.01	osteoporosis	5,988	1,408
1	137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	834	1,408
1	127.02	fractures of nasal bone	230	1,407
1	51.01	sickle cell and other hereditary hemolytic anemias	246	1,405
1	44.02	rheumatoid arthritis and other inflammatory polyarthropathy	6,228	1,395
1	65.01	trigeminal nerve disorder	575	1,394
1	119.03	congenital anomalies of cardiac/circulatory systems	1,914	1,389
1	60.06	nonpsychotic organic brain syndrome	1,901	1,387
1	125.04	abdominal/pelvis symptoms	26,231	1,383
1	11.01	breast cancer	5,175	1,382
1	39.01	divercula of intestine	13,431	1,380
1	31.01	disease of esophagus	10,259	1,376
1	93.01	diabetic retinopathy	3,507	1,368

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	18.05	thyroid/endocrine cancer	189	1,366
1	40.02	anal/rectal disorders	8,363	1,354
1	113.03	other diseases of female genital organs	3,925	1,344
1	6.03	cancer of larynx	235	1,341
1	4.15	mycoses (fungal diseases), miscellaneous	924	1,320
1	136.02	other burns	742	1,320
1	95.04	larynx/vocal cord diseases	715	1,319
1	59.03	non-dependent abuse of drugs	1,436	1,318
1	44.01	systemic lupus erythematosus and other connective tissue disease	1,824	1,317
1	49.03	flat foot, acquired deformities of toe	6,980	1,315
1	21.05	neoplasm of uncertain behavior nec/nos	5,678	1,314
1	131.06	hand/wrist/lower arm fracture	3,154	1,314
1	60.11	other mental disorders	612	1,313
1	136.03	nerve injury	478	1,309
1	116.01	cellulitis/abscess/other local skin infection	16,451	1,307
1	33.02	gastritis/other gastric disorder (stomach disorders)	29,179	1,306
1	120.04	other general symptoms	44,028	1,303
1	40.04	other intestinal disorders	8,694	1,301
1	62.02	Huntington's Disease, other abnormal movement disorders	1,319	1,298
1	118.04	diseases of nail	15,528	1,292
1	131.05	fracture of rib, closed	1,336	1,289
1	52.04	senility without psychosis	432	1,289
1	86.02	atherosclerosis/general, ascvd	12,464	1,288
1	18.03	melanoma	625	1,287
1	143.15	administrative/consultation	1,231	1,286
1	124.02	other cardiovascular symptoms	8,293	1,283
1	70.02	malignant hypertensive heart disease	1,180	1,283
1	119.02	congenital anomalies of eye	1,122	1,282
1	13.02	cancer of cervix/female genital organs	386	1,280
1	112.03	penis/testis/male genital organs disorders	3,593	1,273
1	18.04	skin cancer, except melanoma	12,246	1,267
1	60.08	behavior disorder	222	1,261
1	4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	21,625	1,256
1	4.16	other infections	2,987	1,255
1	65.04	root/plexus lesions	244	1,247
1	44.03	inflammatory spondylopathies	827	1,246
1	27.16	obesity/localized adiposity	3,110	1,245
1	112.02	other prostatic disorders	6,960	1,241
1	110.01	cystitis, other urinary tract infections	28,383	1,240
1	27.10	vitamin/other nutritional deficiencies	1,978	1,234
1	60.07	depression, not elsewhere classified	3,752	1,233
1	143.17	screening/observation/special exams	102,611	1,233
1	27.01	goiter	1,816	1,230
1	60.09	developmental behavioral disorders	270	1,230
1	4.03	other intestinal infections	761	1,226
1	71.03	other chronic ischemic heart disease	40,322	1,225
1	65.03	root/plexus disorders	235	1,224
1	60.03	psychophysiologic disorders	249	1,223
1	43.02	other arthropathy/joint disorders, derangements	45,219	1,223
1	47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	41,034	1,220
1	4.04	tuberculosis	580	1,216
1	44.04	polymyalgia rheumatica	1,588	1,212
1	125.03	other urinary system symptoms	8,268	1,204
1	61.01	headaches, including migraine	9,619	1,203
1	48.01	disorders of soft tissue	45,256	1,201
1	40.01	hemorrhoids	8,623	1,199
1	132.06	open wound of other sites	5,453	1,197
1	63.02	infantile cerebral palsy	470	1,192
1	95.08	salivary gland diseases	701	1,192

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
1	134.02	contusion/superficial injury	18,916	1,192
1	66.03	myoneural disorders/myasthenia gravis	195	1,190
1	65.02	facial nerve disorders	598	1,190
1	27.14	cystic fibrosis, metabolism disorders, nec/nos	664	1,184
1	115.02	pregnancy with abortive outcome	55	1,180
1	120.03	malaise and fatigue	12,968	1,177
1	30.01	cirrhosis	463	1,174
1	70.04	secondary hypertension	205	1,171
1	64.01	epilepsy and other seizure disorders	4,476	1,166
1	123.03	cough	9,903	1,162
1	46.01	osteoarthrosis	53,379	1,158
1	4.02	viral enteritis (intestinal infections)	675	1,155
1	27.02	thyrotoxicosis	2,568	1,153
1	120.02	dizziness and giddiness	12,460	1,147
1	119.05	congenital anomalies of skin	1,297	1,144
1	95.09	oral soft tissue/tongue/jaw disorders	1,923	1,140
1	143.05	history of drug allergy/other health hazard	2,826	1,138
1	4.09	herpes simplex	913	1,135
1	58.01	neurotic disorders (e.g. anxiety, panic attack phobias)	10,193	1,135
1	69.02	hypertensive heart disease	9,828	1,132
1	133.01	sprains	17,931	1,131
1	134.05	other accidents	2,590	1,131
1	95.07	other diseases of upper respiratory system	5,323	1,129
1	89.05	disease of capillaries	443	1,112
1	112.01	hyperplasia of prostate	22,666	1,105
1	60.02	sexual deviations and disorders	669	1,101
1	93.04	retinal disorders	27,568	1,084
1	93.09	other eye disorders	60,986	1,075
1	20.03	benign neoplasm of skin	9,895	1,074
1	113.02	vaginal and cervical diseases	8,094	1,070
1	22.01	diabetes without complications	36,450	1,064
1	94.04	hearing loss	8,253	1,063
1	4.11	other viral infections	6,236	1,059
1	93.06	cataract/lens replacement	97,015	1,050
1	118.02	psoriasis and similar disorders	2,477	1,049
1	95.06	disorders of teeth and jaw	2,151	1,044
1	20.06	benign neoplasm of eye	616	1,044
1	27.06	testicular dysfunction	200	1,042
1	132.05	open wound/injury of lower arm	6,096	1,037
1	97.01	other bronchitis	31,860	1,037
1	132.08	crushing injury	210	1,029
1	132.09	foreign body in eye/ear/nose	1,247	1,029
1	60.04	acute reaction to stress	640	1,026
1	94.03	vertiginous syndromes	5,111	1,023
1	27.03	thyroid disorders	17,794	1,023
1	93.05	glaucoma	30,845	1,022
1	120.01	somatic/segmental dysfunction	6,162	1,021
1	95.02	nasal polyps/allergic rhinitis	12,191	1,020
1	94.05	other ear disorders	10,399	1,018
1	98.02	influenza	3,178	1,017
1	118.05	other dermatological disorders	44,562	1,016
1	95.03	chronic sinusitis	9,969	1,014
1	131.04	other dislocations	3,651	1,013
0	27.07	other endocrine disorders	22	721
0	60.10	mental retardation	134	702
0	20.04	benign neoplasm of breast	557	97
0	27.11	disorders of lipoid metabolism (high cholesterol)	1,335	82
0	143.02	vaccination, medical exam, other preventive	553	66
0	143.16	screening for malignant neoplasm	138	62

TABLE C-6

SORTING ALGORITHM OUTPUT FOR CONCURRENT HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DCG MODEL

ADDCG	ADDXG	LABEL	FREQUENCY	MEAN
0	119.06	chromosomal anomalies	41	61
0	70.01	malignant hypertension	314	60
0	69.01	essential hypertension	5,522	58
0	113.05	menopausal and postmenopausal disorders	307	55
0	143.06	family history of disease	36	54
0	43.01	gout/crystal arthropathy	238	49
0	0.00	NO CLAIMS IN ANY DATA	71,130	49
0	4.05	strep throat/scarlet fever	21	40
0	118.03	other dermatosis	670	39
0	137.03	poisoning by other nonmedicinal substances	44	39
0	137.04	allergy, unspecified	58	31
0	93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	249	29
0	94.02	otitis media (middle ear infection)	278	27
0	94.01	impacted earwax	596	26
0	95.01	acute nose/throat infection	1,264	23
0	143.01	infectious disease contact/carrier	19	21
0	4.08	herpes zoster	167	19
0	89.02	Raynaud's syndrome	6	15
0	27.05	ovarian dysfunction	18	10

NOTE: The sorting algorithm ouput is illustrated in the furthermost right-hand (mean) column

SOURCE: 1992 (expenditures and diagnoses) Medicare claims.

APPENDIX D:

LIFE-SUSTAINING PROCEDURE DEFINITIONS

TABLE D-1

'LIFE-SUSTAINING' PROCEDURES (5-DIGIT NUMBERS ARE CPT-4 CODES)

P1	**EMERGENCY INTUBATION/MECHANICAL VENTILATION**
31500	Intubation, endotracheal, emergency procedure
94650	Intermittent positive pressure breathing (IPPB) treatment; initial
94651	subsequent
94656	Ventilation assist and management; first day
94657	subsequent days
P2	**DIALYSIS**
90935	hemodialysis with single MD evaluation
90937	hemodialysis procedure requiring repeated evaluation
90945	dialysis procedure other than hemodialysis with single MD evaluation
90947	dialysis procedure other than hemodialysis requiring repeated evaluation
P3	**GASTROSTOMY***
43750	percutaneous placement of gastrostomy tube
43760	change of gastrostomy tube
43830	gastrostomy, temporary
43832	gastrostomy, permanent, with construction of gastric tube
P4	**ENTEROSTOMY**
44300	enterostomy or cecostomy, tube
44310	ileostomy or jejunostomy, non-tube
44312	revision of ileostomy; simple
44314	complicated
44316	continent ileostomy
44320	colostomy or skin level cecostomy
44322	with multiple biopsies
44340	revision of colostomy; simple
44345	complicated
44346	with repair of paracolostomy hernia
P5	**TRACHEOSTOMY**
31600	Tracheostomy, planned
31603	Tracheostomy, emergency procedure; transtracheal
31610	Tracheostomy, fenestration procedure with skin flaps
P6	**AMPUTATIONS**
23900	Interthoracoscapular amputation
23920	Disarticulation of shoulder;
24900	Amputation, arm through humerus; with primary closure
25900	Amputation, forearm, through radius and ulna;
25927	Transmetacarpal amputation;
27295	Disarticulation of hip
27590	Amputation, thigh, through femur
27591	immediate fitting technique including first cast
27592	open
27596	re-amputation
27598	Disarticulation at knee
27880	Amputation leg, through tibia and fibula;
27881	with immediate fitting technique including application of first cast
27882	open, circular

TABLE D-1

'LIFE-SUSTAINING' PROCEDURES (5-DIGIT NUMBERS ARE CPT-4 CODES)

27886	re-amputation
27888	Amputation, ankle
27889	Ankle disarticulation
28800	Amputation, foot; midtarsal
28805	transmetatarsal
P7	**VENOUS ACCESS PORT****
36495	insertion of intravenous infusion pump or venous access port
36496	revision of intravenous infusion pump or venous access port
P8	**CHEMOTHERAPY**
96400	Chemotherapy administration subcutaneous or intramuscular
96408	Chemotherapy administration, intraveneous; push technique
96410	Chemotherapy administration, intraveneous; infusion technique, up to 1 hr.
96412	Chemotherapy administration, intraveneous; infusion technique, 1-8 hrs.
96414	Infusion technique, initiation of prolonged infusion
96420	Chemotherapy administration, intra-arterial; push technique
96422	Chemotherapy administration, intra-arterial; infusion technique, up to 1 hr.
96423	Chemotherapy administration, intra-arterial; infusion technique, 1-8 hrs.
96425	Infusion technique, initiation of prolonged infusion
96445	Chemotherapy infusion into peritoneal cavity
96450	Chemotherapy administration, into CNS
96520	Refilling and maintenance of portable pump
P9	**MAJOR ORGAN TRANSPLANTS**
33935	heart-lung transplant
33945	heart transplant
47135	liver transplant
40260	kidney transplant
P10	**RADIATION THERAPY**
77261	Therapeutic radiology treatment planning; simple
77262	Therapeutic radiology treatment planning; intermediate
77263	Therapeutic radiology treatment planning; complex
77280	Therapeutic radiology simulation-aided field setting; simple
77285	Therapeutic radiology simulation-aided field setting; intermediate
77290	Therapeutic radiology simulation-aided field setting; complex
77295	by three-dimensional reconstruction of tumor volume
77299	Unlisted procedure, therapeutic radiology clinical treatment planning
77300	Basic radiation dosimetry calculation
77305	Teletherapy, isodose plan; simple
77310	Teletherapy, isodose plan; intermediate
77315	Teletherapy, isodose plan; complex
77321	Special teletherapy port plan
77326	Brachytherapy isodose calculation; simple
77327	Brachytherapy isodose calculation; intermediate
77328	Brachytherapy isodose calculation; complex
77331	Special dosimetry
77332	Treatment devices, design and construction; simple
77333	Treatment devices, design and construction; intermediate
77334	Treatment devices, design and construction; complex

TABLE D-1

'LIFE-SUSTAINING' PROCEDURES (5-DIGIT NUMBERS ARE CPT-4 CODES)

77336	Continuing medical radiation physics consultation
77370	Special medical radiation physics consultation
77399	Unlisted procedure, medical radiation physics
77401	Radiation treatment delivery, superficial and/or ortho voltage
77402	Radiation treatment delivery, single treatment area, up to 5 MeV
77403	Radiation treatment delivery, single treatment area, 6-10 MeV
77404	Radiation treatment delivery, single treatment area, 11-19 MeV
77406	Radiation treatment delivery, single treatment area, 20 or greater MeV
77407	Radiation treatment delivery, two separate areas, up to 5 MeV
77408	Radiation treatment delivery, two separate areas, 6-10 MeV
77409	Radiation treatment delivery, two separate areas, 11-19 MeV
77411	Radiation treatment delivery, two separate areas, 20 or greater MeV
77412	Radiation treatment delivery, three or more areas, up to 5 MeV
77413	Radiation treatment delivery, three or more areas, 6-10 MeV
77414	Radiation treatment delivery, three or more areas, 11-19 MeV
77416	Radiation treatment delivery, three or more areas, 20 or greater MeV
77417	Therapeutic radiology port films
77419	Weekly radiation therapy management; conformal
77420	Weekly radiation therapy management; simple
77425	Weekly radiation therapy management; intermediate
77430	Weekly radiation therapy management; complex
77431	Radiation therapy management with complete course of therapy
77432	Stereotactic radiation treatment management
77470	Special treatment procedure
77499	Unlisted procedure, therapeutic radiology clinical treatment
77600	Hyperthermia, externally generated
77605	Hyperthermia, deep
77610	Hyperthermia, generated by 5 or fewer interstitial probes
77615	Hyperthermia, generated by more than 5 interstitial probes
77620	Hyperthermia generated by intracavitary probes
77750	Infusion or instillation of radioelement solution
77761	Intracavitary radioelement application; simple
77762	Intracavitary radioelement application; intermediate
77763	Intracavitary radioelement application; complex
77776	Interstitial radioelement application; simple
77777	Interstitial radioelement application; intermediate
77778	Interstitial radioelement application; complex
77781	Remote afterloading high intensity brachytherapy, 1-4 source positions
77782	Remote afterloading high intensity brachytherapy, 5-8 source positions
77783	Remote afterloading high intensity brachytherapy, 9-12 source positions
77784	Remote afterloading high intensity brachytherapy, over 12 positions
77789	Surface application of radioelement
77790	Supervision. handling, loading of radioelement
77799	Unlisted procedure, clinical brachytherapy

* For concurrent models using 1992 data, code 43761 was added.

** For concurrent models using 1992 data, codes 36530, 36531, 36533, and 36534 were used.

SOURCE: 1991 CPT-4 procedure codes.

APPENDIX E:

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY (DXGROUP)

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
0	NO CLAIMS IN ANY DATA	1	2	1	1	1	1	0	0
1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS, ENCEPHALITIS)								
1.01	central nervous system infection (e.g., meningitis, encephalitis)	1	2	1	1	1	1	1	23
2	SEPTICEMIA/SHOCK								
2.01	septicemia/shock	10	10	10	10	10	10	20	23
3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)								
3.01	HIV/AIDS (including pneumocytosis)	10	10 (2)	8	8	7	7	5	31 (0)
4	OTHER INFECTIOUS AND PARASITIC DISEASES								
4.01	bacterial enteritis (intestinal infections)	3	5	4	2	4	2	5	14
4.02	viral enteritis (intestinal infections)	1	5	4	2	4	2	1	14
4.03	other intestinal infections	1	5	4	1	4	1	1	14
4.04	tuberculosis	3	5	4	1	4	1	1 (0)	14
4.05	strep throat/scarlet fever	1	5	4	1	4	1	1	14
4.06	other bacterial infections	1	5	4	2	4	2	1	14
4.07	bacterial infection in other diseases	5	5	4	4	4	4	8	14
4.08	herpes zoster (shingles)	1	5	4	1	4	1	0	14
4.09	herpes simplex	1	5	4	1	4	1	1	14
4.10	viral hepatitis	1	5	4	2	4	2	1	14
4.11	other viral infections	1	5	4	2	4	2	1	14
4.12	late syphilis, symptomatic	1	5	4	1*	4	1*	1	14
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	3	5	4	2	4	2	1	14
4.14	thrush	3	5	4	4	4	4	1	14
4.15	mycoses (fungal diseases), miscellaneous	1	5	4	1	4	1	1	14
4.16	other infections	1	5	4	1	4	1	1	14
5	LATE EFFECTS								
5.01	infection late effects	1	8	7	2	2	2	1	27
5.02	cerebrovascular disease late effects	5	8	7	4	4	4	3	27
5.03	injury late effects	1	8	7	2	2	2	3	27

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

DXG	LABEL	ADDCG	PIPDCG	EDCG PIP EDCG	EDCG NON-PIP EDCG	EDCGP PIP EDCGP	EDCGP NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER								
6.01	cancer of mouth/tongue	5	12	10	4	10	4	1	23
6.02	cancer of pharynx	10	12	10	10	10	8	3	23
6.03	cancer of larynx	4	12	10	4	10	4	1	23
6.04	other respiratory/intrathoracic cancer	4 (1)	12	10	4 (1)	10	4 (1)	3	23
7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER								
7.01	cancer of esophagus	14	14	14	14	14	10	2	31
7.02	cancer of stomach	5	14	14	4	14	4	5	31
7.03	cancer of small bowel/peritoneum	7	14	14	4	14	4	3	31
7.04	cancer of liver	14	14	14	7	14	8	5	31
7.05	cancer of pancreas	10	14	14	8	14	8	14	31
7.06	other, unspecified cancer of digestive organs/peritoneum	4	14	14	4 (1)	14	4 (1)	1	31
8	COLON CANCER								
8.01	colon cancer	3	8	6	4	4	4	1	20
9	RECTAL CANCER								
9.01	rectal cancer	4	8	6	4	5	4	1	20
10	LUNG CANCER								
10.01	lung cancer	10	14	12	8	12	8	3	23
11	BREAST CANCER								
11.01	breast cancer	1	4	2	2	2	2	1	8
12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA								
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	5	17	17	4	17	4	1	35
12.02	multiple myeloma	8	17	17	8	17	8	3	35
12.03	lymphoid leukemia	6	17	17	6	17	6	1	35
12.04	myeloid leukemia	10	17	17	8	17	8	10	35
12.05	other leukemia	3	17	17	6	17	6	3	35
13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS								
13.01	cancer of uterus	1	6	4	2	4	2	1	12
13.02	cancer of cervix/female genital organs	3	6	4	2	4	2	1	12

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA								
14.01	cancer of ovaries/placenta/uterine adnexia	4	12	4	4	4	4	1	20
15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS								
15.01	prostate cancer	3	5	4	4	4	4	1	10
15.02	cancer of testis/male genital organs	3	5	4	4	4	4	3	10
16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS								
16.01	cancer of bladder/kidney/urinary organs	5	8	8	4	8	4	1	14
17	NEOPLASM OF NERVOUS SYSTEM								
17.01	cancer of the eye	5 (1)	8	8	4 (1)	8	4 (1)	1	31
17.02	cancer of the brain/nervous system/pituitary, pineal glands	5	8	8	4	8	4	3	31
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	5	8	8	4	8	4	3	31
18	OTHER CANCER								
18.01	cancer of bone and articular cartilage	5	8	8	5	5	5	3	14
18.02	cancer of connective and other soft tissue	3	8	8	4	5	4	1	14
18.03	melanoma	1	8	8	2	5	2	1	14
18.04	skin cancer, except melanoma, including lip	1	8	8	2	5	2	1	14
18.05	thyroid/endocrine cancer	3	8	8	2	5	2	1	14
18.06	other/ill-defined site cancer	3	8	8	4	5	4	3	14
19	SECONDARY CANCERS								
19.01	secondary cancer of lymph node	6	17	17	6	17	6	14	31
19.02	secondary cancer of respiratory and digestive systems	14	17	17	12	17	12	20	31
19.03	secondary cancer of other site	10	17	17	8	17	8	10	31
19.04	disseminated cancer	5	17	17	6	17	6	3	31
20	BENIGN NEOPLASMS								
20.01	benign neoplasm of digestive system	1	3	2	2	2	2	1	10
20.02	benign neoplasm of respiratory system	3	3	4	4	4	4	3	10
20.03	benign neoplasm of skin	1	3	2	1	1	1	1	10
20.04	benign neoplasm of breast/other breast disorders	1	3	2	1	1	1	0	10
20.05	benign neoplasm of urinary	1	3	4	4	4	4	3	10
20.06	benign neoplasm of eye	1	3	2	1	1	1	1	10
20.07	other benign neoplasms	1	3	2	2	2	2	1	10

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR								
21.01	carcinoma in situ of digestive organs	4	5	4	4	4	4	4	14
21.02	carcinoma in situ of respiratory system	2 (1)	5	2	2	2 (1)	2 (1)	10	14
21.03	carcinoma in situ of other sites, except skin	3	5	2	2	2	2	3	14
21.04	neoplasm of uncertain behavior, specified sites	3	5	4	4	4	4	3	14
21.05	neoplasm of uncertain behavior nec/nos	1	5	2	2	2	2	1	14
21.06	unspecified neoplasm	2	5	2	2	2	2	1	14
22	DIABETES WITHOUT COMPLICATIONS								
22.01	diabetes without complications	3	3 (2)	2	2	2	2	1	23
23	DIABETES WITH ACUTE COMPLICATIONS								
23.01	diabetes with acute complications	3	12	12	4	10	4	1	8
24	DIABETES WITH CHRONIC COMPLICATIONS								
24.01	diabetes with renal manifestation	10	12	12	8	10	8	3	14
24.02	diabetes with other specified complications	8	12	12	6	10	6	1	14
24.03	diabetes with unspecified complications	5	12	12	4	10	4	3	14
25	HYPOGLYCEMIA								
25.01	hypoglycemic coma	10	12	10	10	10	10	5	8
25.02	other hypoglycemia	1	12	10	2	10	2	1	8
26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE								
26.01	disorders of fluid/electrolyte/acid-base balance	5	10	8	4	8	4	5	14
27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES								
27.01	goiter	1	5	1	1	1	1	1	10
27.02	thyrotoxicosis, including Graves' disease	1	5	1	1	1	1	1	10
27.03	thyroid disorders	1	5	1	1	1	1	1	10
27.04	adrenal gland disorders, e.g., Cushing's syndrome	5	5	4	4	4	4	3	10
27.05	ovarian dysfunction	1	5	1	1	1	1	1 (0)	10
27.06	testicular dysfunction	3	5	2	2	2	2	1	10
27.07	other endocrine disorders	1	5	2	2	2	2	1 (0)	10
27.08	pituitary/parathyroid/thymus/polyglandular disorders	3	5	2	2	2	2	1	10
27.09	protein-calorie malnutrition	10	5	10	10	8	8	14	10
27.10	vitamin/other nutritional deficiencies (e.g., rickets, scurvy)	1	5	2	2	2	2	1	10
27.11	disorders of lipoid metabolism (high cholesterol)	1	5	1	1	1	1	0	10

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
27.12	disorders of plasma protein metabolism	5	5	4	4	4	4	3	10
27.13	disorders of mineral metabolism	1	5	2	2	2	2	1	10
27.14	metabolism disorders, nec/nos	1	5	1	1	1	1	1	10
27.15	other hyperalimentation	3	5	2	2	2	2	1	10
27.16	obesity/localized adiposity	1	5	1	1	1	1	1	10
28	PANCREATITIS/ OTHER PANCREATIC DISORDERS								
28.01	acute pancreatitis	3	8	4	4	4	4	5	14
28.02	chronic pancreatitis/other pancreatic diseases/intestinal malabsorption	5	8	4	4	4	4	1	14
29	END STAGE LIVER DISORDERS								
29.01	end stage liver disorders	14	17	17	14	20	14	14	31
29.02	esophageal varices	14	17	17	14	20	8	6	31
30	OTHER LIVER DISORDERS								
30.01	cirrhosis	5	10	6	6	8	5	1	17
30.02	other liver disorders, including toxic hepatitis	3	10	6	2	8	2	1	17
31	DISEASES OF ESOPHAGUS								
31.01	disease of esophagus	1	6	4	2	4	2	1	7
32	ULCERS								
32.01	ulcer without perforation	3	5	4	2	4	2	1	10
32.02	ulcer with perforation	5	5	4	4	4	4	1	10
33	GASTRITIS/OTHER GASTRIC DISORDERS								
33.01	pyloric/duodenal obstruction	1	8	4	4	6	4	8	7
33.02	gastritis/other gastric disorder (stomach disorders)	1	8	4	2	6	2	1	7
34	APPENDICITIS								
34.01	appendicitis	3	4	4	4	4	4	3	10
35	ABDOMINAL HERNIA/ COMPLICATED								
35.01	abdominal hernia, complicated	3	4	2	2	2	2	2	12
36	ABDOMINAL HERNIA/ UNCOMPLICATED								
36.01	abdominal hernia/uncomplicated	1	4	2	2	2	2	1	6

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
37	INFLAMMATORY BOWEL DISEASE								
37.01	regional enteritis (Crohn's disease)	3	8	8	4	8	4	1	17
37.02	ulcerative colitis	3	8	8	2	8	2	1	17
38	PERITONITIS/INTESTINAL OBSTRUCTION								
38.01	intestinal obstruction	5	8	6	4	6	4	8	14
38.02	peritonitis	4	8	6	6	6	4	27	14
38.03	other peritoneal disorders	5	8	6	2	6	2	8	14
39	DIVERTICULA OF INTESTINE								
39.01	diverculа of Intestine	1	5	4	2	4	2	1	8
40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS								
40.01	hemorrhoids	1	6	4	1	4	1	1	10
40.02	anal/rectal disorders	1	6	4	2	4	2	1	10
40.03	intestinal abcess/ulceration/perforation	3	6	4	4	4	4	3	10
40.04	other intestinal disorders	3	6	4	2	4	2	1	10
41	GALLBLADDER DISORDERS								
41.01	cholelithiasis (gallstones)	3	4	2	2	2	2	3	10
41.02	biliary tract disease	3	4	4	4	4	4	8	10
41.03	other gallbladder disorders	3	4	2	2	2	2	3	10
42	GASTROINTESTINAL HEMORRHAGE								
42.01	gastrointestinal hemorrhage	3	8	7	2	6	2	1	10
43	GOUT/ARTHROPATHY/DERANGEMENTS								
43.01	gout/crystal arthropathy	1	5	4	2	4	2	0	14
43.02	other arthropathy/joint disorders, derangements, joint pain/stiffness	3	5	4	2	4	2	1	14
44	CONNECTIVE TISSUE DISEASES								
44.01	systemic lupus erythematosus, scleroderma, and other connective tissue disease	3	8	8	4	7	4	1	14
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	3	8	8	4	7	4	1	14
44.03	inflammatory spondylopathies	1	8	8	2	7	2	1	14
44.04	polymyalgia rheumatica	2	8	8	2	7	2	1	14

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
45	ARTHROPATHY/BONE INFECTION								
45.01	arthropathy with infection	5 (1)	12	10	2	10	2	1	23
45.02	osteomyelitis	5	12	10	2	10	2	1	23
46	OSTEOARTHRITIS								
46.01	osteoarthritis	3	4	4	2	4	2	1	14
47	BACK DISORDERS (E.G., HERNIATED DISC, LUMBAGO, SCIATICA, BACKACHE)								
47.01	back disorders (e.g., herniated disc, lumbago, sciatica, backache)	1	5	4	2	4	2	1	10
48	DISORDERS OF SOFT TISSUES (E.G., TENDONITIS, BURSITIS)								
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	1	5	2	2	2	2	1	6
49	OTHER BONE DISORDERS								
49.01	osteoporosis	3	7	6	2	6	2	1	14
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	3	7	6	2	6	2	1	14
49.03	flat foot, acquired deformities of toe	1	7	6	2	6	2	1	14
49.04	other acquired limb deformities	1	7	6	2	6	2	1	14
50	IRON DEFICIENCY AND OTHER/UNSPECIFIED ANEMIAS								
50.01	iron deficiency and other/unspecified anemias	3	10	8	2	8	2	1	10
51	OTHER BLOOD DISEASES								
51.01	sickle cell and other hereditary hemolytic anemias	3	14	14	2	14	2	1	17
51.02	acquired hemolytic anemia	10	14	14	8	14	7	3	17
51.03	aplastic anemia	14	14	14	10	14	10	10	17
51.04	hemophilia and other coagulation defects	5	14	14	4	14	4	3	17
51.05	purpura/thrombocytopathy/hemorrhagic conditions	3	14	14	4	14	4	1	17
51.06	white blood cell disorders	3	14	14	4	14	2	1	17
51.07	immune disorders	5	14	14	2	14	2	2	17
51.08	other blood disease	3	14	14	4	14	2	1	17
52	DEMENTIA								
52.01	senile/presenile psychoses	5	7	7	4	7	4	1	10
52.02	other organic psychotic conditions	3	7	7	4	7	4	3	10
52.03	cerebral degeneration/Alzheimer's disease	5	7	7	4	7	4	1	10
52.04	senility without psychosis	4	7	7	4	7	4	1	10

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

DXG	LABEL	ADDCG	PIPDCG	EDCG PIP EDCG	EDCG NON-PIP EDCG	EDCGP PIP EDCGP	EDCGP NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
53	SUBSTANCE-RELATED PSYCHOSES								
53.01	alcoholic psychoses	8	8	8	6	10	6	8	6
53.02	drug psychoses	8	8	8	6	10	6	10	6
54	DELIRIUM/HALLUCINATIONS								
54.01	delirium/delusions/hallucinations	8	8	8	6	8	6	10	14
54.02	hallucinations, symptomatic	5	8	8	4	8	4	4	14
55	SCHIZOPHRENIC DISORDERS								
55.01	schizophrenic disorders	3	8	8	2	8	2	3	12
56	MANIC AND DEPRESSIVE DISORDERS, INCLUDING MAJOR DEPRESSIVE DISORDER								
56.01	manic and depressive disorders, including major depressive disorder	5	10	10	4	10	4	3	17
57	PARANOIA AND OTHER PSYCHOSES								
57.01	paranoid states	5	8	8	2	7	2	4	7
57.02	other nonorganic psychoses	5	8	8	4	7	4	1	7
58	NEUROTIC DISORDERS								
58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	1	5	5	2	5	2	1	10
59	SUBSTANCE ABUSE AND DEPENDENCE								
59.01	alcohol dependence	5	5	5	2	5	2	4	8
59.02	drug dependence	8	5	5	5	5	5	10	8
59.03	non-dependent abuse of drugs	1	5	5	2	5	2	1	8
60	OTHER MENTAL DISORDERS								
60.01	personality disorders	6	7	2	2 (1)	7	2 (1)	8	8
60.02	sexual deviations and disorders	2	7	2	2	7	2	1	8
60.03	psychophysiologic disorders	2 (1)	7	2	2 (1)	7	2 (1)	1	8
60.04	acute reaction to stress	2	7	2	2	7	2	1	8
60.05	adjustment reaction	3	7	2	2	7	2	1	8
60.06	nonpsychotic organic brain syndrome	3	7	4	4	7	4	1	8
60.07	depression, not elsewhere classified	3	7	2	2	7	2	1	8
60.08	behavior disorder	2 (1)	7	2	2	7	2	1	8
60.09	developmental behavioral disorders	2 (1)	7	2	2 (1)	7	2 (1)	1	8
60.10	mental retardation	2 (1)	7	2	2 (1)	7	2 (1)	0	8
60.11	other mental disorders	2	7	2	2	7	2	1	8

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
61	HEADACHES								
61.01	headaches, including migraine	1	4	5	2	5	2	1	6
62	DEGENERATIVE NEUROLOGIC DISORDERS								
62.01	Parkinson's disease	5	8	6	4	7	4	1	14
62.02	Huntington's Disease, essential tremor, other abnormal movement disorders	1	8	6	2	7	2	1	14
62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	5	8	6	6	7	6	3	14
62.04	other spinal cord disease	5	8	6	4	7	4	3	14
62.05	autonomic nerve disorder	6	8	6	6	7	6	3	14
62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	5	8	6	4	7	4	1	14
63	OTHER NEUROLOGIC DISORDERS								
63.01	multiple sclerosis, other central nervous system dymelination	3	10	8	2	8	2	2	17
63.02	infantile cerebral palsy	1	10	8	2 (1)	8	1	1	17
63.03	quadriplegia	10	10	8	6	8	6	6	17
63.04	paraplegia	10	10	10	10	10	10	4	17
63.05	cauda equina syndrome	5	10	8	6	8	6	2	17
63.06	other paralytic disorders	3	10	8	4	8	4	3	17
63.07	nervous/musculoskeletal system symptoms	3	10	8	4	8	4	1	17
63.08	other central nervous system disorders	5	10	8	4	8	4	4	17
64	EPILEPSY AND OTHER SEIZURE DISORDERS/CONVULSIONS								
64.01	epilepsy and other seizure disorders/convulsions	1	8	8	2	6	2	1	10
65	MONONEUROPATHY								
65.01	trigeminal nerve disorders	2	8	5	2	5	2	1	10
65.02	facial nerve disorders, including Bell's Palsy	1	8	5	2 (1)	5	2 (1)	1	10
65.03	root/plexus disorders	1	8	5	2	5	2	1	10
65.04	root/plexus lesions	2	8	5	2	5	2	1	10
65.05	other cranial nerve disorders	1	8	5	2	5	2	1	10
65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	1	8	5	2	5	2	1	10
65.07	neuropathy of leg	1	8	5	2	5	2	1	10

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNA~IVE DCG MODELS

DXG	LABEL	ADDCG	PIPDCG	EDCG PIP EDCG	EDCG NON-PIP EDCG	EDCGP PIP EDCGP	EDCGP NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
66	POLYNEUROPATHY								
66.01	inflammatory/toxic neuropathy, including Guillian-Barre Syndrome	5	14	14	4	14	4	1	17
66.02	myoneural disorders/myasthenia gravis	8	14	14	6	14	6	3	17
66.03	muscular dystrophies	3	14	14	4	14	4	1	17
66.04	other neuropathy	8	14	14	6	14	7	1	17
66.05	peripheral neuropathy	2 (1)	8 (14)	5 (14)	2 (1)	5 (14)	2 (1)	1	10
67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE,								
67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	5	10	10	4	10	4	4	23
68	VALVULAR AND RHEUMATIC HEART DISEASE								
68.01	rheumatic fever/heart disease	7	6	6	4	6	4	3	35
68.02	mitral or aortic valve/endocardia disease	3	6	6	4	6	4	1	35
68.03	mitral/aortic valve disorders	7	6	6	4	6	4	3	35
69	HYPERTENSION, UNCOMPLICATED								
69.01	essential hypertension	1	8	8	2	8	2	0	14
69.02	hypertensive heart disease	1	8	8	2	8	2	1	14
70	HYPERTENSION, COMPLICATED								
70.01	malignant hypertension	1	8	6	2	6	2	0	8
70.02	malignant hypertensive heart disease	3	8	6	2	6	2	1	8
70.03	hypertensive heart and renal disease	3	8	6	2	6	2	1	8
70.04	secondary hypertension	2 (1)	8	6	2 (1)	6	2 (1)	1	8
70.05	hypertension encephalopathy	3	8	6	2	6	2	3	8
71	MYOCARDIAL INFARCTION								
71.01	myocardial infarction	5	5	4	4	4	4	1	23
71.02	old myocardial infarction	5	5	4	4	4	4	1	23
71.03	other chronic ischemic heart disease	3	5	4	4	4	4	1	23
72	ACUTE MYOCARDIAL INFARCTION								
72.01	acute myocardial ir arction	7	7	6	6	6	6	17	17
73	OTHER ACUTE ISCHEMIA								
73.01	other acute ischemia	5	8	7	4	7	4	7	12

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
74	ANGINA PECTORIS								
74.01	angina pectoris	3	6	7	4	7	4	1	6
75	PULMONARY HEART DISEASE								
75.01	pulmonary embolism (blood clot)	3	6	5	4	5	4	8	17
75.02	other pulmonary heart disease	7	6	5	4	5	4	3	17
76	RHYTHM AND CONDUCTION DISORDERS								
76.01	conduction disorders/cardiac dysrhythmias	3	5	4	2	4	2	1	10
76.02	premature heart beats	3	5	4	2	4	2	1	10
77	ATRIAL ARRHYTHMIA								
77.01	atrial arrhythmia	3	6	4	4	4	4	1	6
78	VENTRICULAR TACHYCARDIA								
78.01	ventric tachycardia	8	10	8	6	8	6	8	23
79	HEART ARREST/ SHOCK								
79.01	heart arrest/shock	8 (1)	10 (2)	8*	6	8 (1)	6 (1)	3	31
80	HEART FAILURE								
80.01	heart failure	7	12	12	6	12	6	1	14
81	OTHER CARDIAC DISEASE								
81.01	pericarditis, post-MI	3	6	6	4 (1)	5	4	3	23
81.02	acute endo/myocarditis	3 (1)	6	6	4	5	4	1	23
81.03	cardiomyopathy/myocarditis	3	6	6	4	5	4	3	23
81.04	cardiomegaly (enlarged heart)	5	6	6	4	5	4	3	23
81.05	other heart disease	3	6	6	4	5	4	1	23
82	CEREBRAL HEMORRHAGE								
82.01	cerebral hemorrhage	5	6	4	4	4	4	6	23
83	PRECEREBRAL ARTERIAL OCCLUSION								
83.01	precerebral arterial occlusion	3	6	5	4	5	4	3	10

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
84	CEREBROVASCULAR DISEASE								
84.01	cerebrovascular accident (stroke)	5	8	8	4	8	4	1	14
84.02	hemiplegia (paralysis of one side of body)	8	8	8	6	8	8	14	14
84.03	aphasia (loss of language skills/comprehension)	8	8	8	8	8	8	14	14
85	TRANSIENT CEREBRAL ISCHEMIA								
85.01	transient cerebral ischemia	3	6	6	4	4	4	1	5
86	ATHEROSCLEROSIS								
86.01	atherosclerosis/arteriosclerosis of major vessel	5	8	7	4	8	4	1	23
86.02	atherosclerosis/general, arteriosclerotic cardiovascular disease, arteriosclerosis/general	3	8	7	2	8	2	1	23
87	ANEURYSM								
87.01	aortic aneurysm	5	6	6	6	6	6	3	31
87.02	other aneurysm	5	6	6	6	6	6	3	31
88	ARTERIAL EMBOLISM AND THROMBOSIS								
88.01	arterial embolism and thrombosis (blood clots)	7	10	10	6	8	6	5	27
89	PERIPHERAL VASCULAR DISEASE								
89.01	specified peripheral vascular disease	5	10	10	4	10	4	1	27
89.02	Raynaud's syndrome	1	10	10	1	10	1	1 (0)	27
89.03	peripheral vascular disease	5	10	10	4	10	4	1	27
89.04	other arterial disease	5	10	10	4	10	4	3	27
89.05	disease of capillaries	1	10	10	4	10	4 (1)	1	27
89.06	vascular insufficiency of intestines	7	10	10	6	10	6	8	27
89.07	gangrene	12	10	10	10	10	10	23	27
90	THROMBOPHLEBITIS								
90.01	phlebitis and thrombophlebitis	1	6	4	2	4	2	1	7
90.02	noninfectious lymphatic disorders	3	6	4	4	4	4	3	7
90.03	hemorrhage nos	1	6	4	1*	4	1*	3	7
90.04	compression of vein	1	6	4	2 (1)	4	2 (1)	1	7
91	HYPOTENSION (LOW BLOOD PRESSURE)								
91.01	hypotension (low blood pressure)	3	6	5	4	5	4	3	6

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
92	OTHER CIRCULATORY DISEASE								
92.01	superficial phlebitis-leg	3	8	8	2	8	2	1	10
92.02	varicose veins	1	8	8	2	8	2	1	10
92.03	other circulatory disease/postphlebitic syndrome	5	8	8	4	8	4	1	10
92.04	other specified circulatory disorders	3	8	8	2	8	2	1	10
93	DISORDERS OF THE EYE AND ADNEXA								
93.01	diabetic retinopathy	5	5	4	4	4	4	1	6
93.02	proliferative diabetic retinopathy	5	5	6	6	6	6	1	6
93.03	endophthalmitis (eye inflammation)	1	5	2	2	2	2	1	6
93.04	retinal disorders	1	5	2	2	2	2	1	6
93.05	glaucoma	1	5	2	2	2	2	1	6
93.06	cataract/lens replacement	1	5	2	2	2	2	1	6
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	1	5	2	1	2	1	0	6
93.08	vitreous hemorrhage	2	5	2	2	2	2	3	6
93.09	other eye disorders	1	5	2	1	2	1	1	6
94	EAR DISORDERS								
94.01	impacted earwax	1	3	2	2	2	2	0	0
94.02	otitis media (middle ear infection)	1	3	1	1	1	1	0	0
94.03	vertiginous syndromes (e.g., vertigo, Meniere's disease)	1	3	1	1	1	1	1	0
94.04	hearing loss	1	3	1	1	1	1	1	0
94.05	other ear disorders	1	3	2	2	2	2	1	0
95	NOSE/ THROAT DISEASES								
95.01	acute nose/throat infection (e.g., common cold)	1	5	1	1	1	1	0	6
95.02	nasal polyps/allergic rhinitis (e.g., hay fever)	1	5	1	1	2	2	1	6
95.03	chronic sinusitis	1	5	2	2	2	2	1	6
95.04	larynx/vocal cord diseases	3	5	2	2	2	2	1	6
95.05	paralysis of vocal cords/larynx	7	5	6	6	6	6	3	6
95.06	disorders of teeth, gum, and jaw (e.g., gingivitis, periodontitis)	1	5	1	1	1	1	1	6
95.07	other diseases of upper respiratory system	1	5	2	2	2	2	1	6
95.08	salivary gland diseases	3	5	2	2	2	2	1	6
95.09	other oral soft tissue/tongue/jaw disorders	1	5	2	2	2	2	1	6
96	EMPHYSEMA/CHRONIC BRONCHITIS								
96.01	emphysema/chronic bronchitis	3	14	14	4	14	4	1	14

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
97	OTHER BRONCHITIS								
97.01	other bronchitis	1	8	8	2	8	2	1	7
98	VIRAL PNEUMONIA/INFLUENZA								
98.01	viral pneumonia	3	5	5	4	5	2	3	10
98.02	influenza	1	5	5	2	5	2	1	10
99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA								
99.01	gram-negative/staphylococcus pneumonia	10	12	10	10	10	10	23	23
100	BACTERIAL PNEUMONIA								
100.01	pneumococcal and other specific bacterial pneumonia	5	7	6	2 (1)	6	2 (1)	6	10
100.02	other and unspecified pneumonia	3	7	6	2	6	2	1	10
101	ASTHMA								
101.01	asthma	3	10	8	2	10	2	1	10
102	LUNG DISEASES DUE TO EXTERNAL AGENTS								
102.01	bronchiectasis/lung diseases due to specified external agents (e.g., black lung disease)	3	14	14	4	10	4	1	31
102.02	aspiration pneumonia	14	14	14	10	10	10	23	31
102.03	respiratory conditions due to other and unspecified external agents/postinflammatory fibrosis	3	14	14	4	10	4	1	31
103	PLEURISY/PNEUMOTHORAX (COLLAPSED LUNG)								
103.01	pleurisy/pneumothorax (collapsed lung)	3	8	7	4	6	4	10	17
104	OTHER LUNG DISEASE								
104.01	empyema/abscess of lung	8	14	12	6	8	8	3	23
104.02	pulmonary congestion/hypostasis	3	14	12	2	8	2	1	23
104.03	acute lung edema nos	14	14	12	12	14	14	17	23
104.04	post trauma/surgery pulmonary insufficiency	8	14	12	8	8	8	40	23
104.05	other lung disease	3	14	12	4	8	2	3	23
105	RESPIRATORY FAILURE/ARREST								
105.01	respiratory failure	7	17	17	4	14	4	6	35
105.02	respiratory arrest	17	17	17	17	14	14	40	35

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
106	RENAL FAILURE								
106.01	nephritis, dialysis encounter	7	14	14	4	14	4	3	23
106.02	acute renal failure	14	14	14	14	14	12	27	23
106.03	chronic renal failure	10	14	14	8	14	8	3	23
106.04	renal failure, unspecified	7	14	14	6	14	6	3	23
106.05	impaired renal function	5	14	14	4	14	4	1	23
107	KIDNEY INFECTION								
107.01	kidney infection	1	7	6	2	6	2	1	7
108	RENAL/URETERAL/BLADDER CALCULUS								
108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	1	4	2	2	2	2	1	6
109	OTHER RENAL/URETERAL DISEASES								
109.01	urethral stricture	3	8	8	2	8	2	1	10
109.02	hydronephrosis/other renal/urethral disorders	3	8	8	4	8	4	1	10
110	OTHER URINARY TRACT INFECTIONS								
110.01	cystitis, other urinary tract infections	1	10	10	2	10	2	1	10
111	OTHER URINARY DISORDERS								
111.01	other urinary disorders	3	6	4	2	6	2	1	7
112	PROSTATE/TESTICULAR/PENILE DISORDERS								
112.01	hyperplasia of prostate	1	3	2	2	2	2	1	5
112.02	other prostatic disorders	1	3	2	2	2	2	1	5
112.03	penis/testis/male genital organs disorders	1	3	2	2	2	2	1	5
113	DISEASES OF FEMALE GENITAL ORGANS								
113.01	diseases of female pelvic organs	1	3	2	2	2	2	1	6
113.02	vaginal and cervical diseases	1	3	2	1	2	1	1	6
113.03	other diseases of female genital organs	1	3	2	1	2	1	1	6
113.04	female stress incontinence	1	3	2	2	2	2	1	6
113.05	menopausal and postmenopausal disorders	1	3	2	1	2	1	0	6
114	GENITAL PROLAPSE								
114.01	genital prolapse	1	2	1	1	1	1	1	5

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
115	PREGNANCY/PERINATAL CONDITIONS								
115.01	pregnancy/birth complications, mother/child	1	2	1	1	1	1	1	0
115.02	pregnancy with abortive outcome	3	2	1	1	1	1	1	0
115.03	normal pregnancy/delivery	1	2	1	1	1	1	1	0
116	DERMATOLOGICAL DISORDERS								
116.01	cellulitis/abscess/other local skin infection	3	8	8	2	8	2	1	8
116.02	bullous dermatoses	3	8	8	4	8	4	1	8
117	CHRONIC ULCER OF SKIN								
117.01	chronic ulcer of skin	5	14	14	6	14	6	1	31
118	OTHER DEMATOLOGICAL DISORDERS								
118.01	dermatitis due to substances taken internally (e.g., food, drugs)	1	5	1	1	1	1	1	10
118.02	psoriasis and similar disorders	1	5	2	2	2	2	1	10
118.03	other dermatosis	1	5	1	1	1	1	0	10
118.04	diseases of nail (e.g., ingrown toenail)	3	5	4	4	4	4	1	10
118.05	other dermatological disorders	1	5	1	1	1	1	1	10
119	CONGENITAL ANOMALIES								
119.01	spina bifida, other congenital anomalies of nervous system	5	6	7	4	7	4	1	23
119.02	congenital anomalies of eye	1	6	7	1	7	1	1	23
119.03	congenital anomalies of cardiac/circulatory systems	3	6	7	4	7	4	1	23
119.04	congenital anomalies of musculoskeletal/limb	3	6	7	2	7	2	1	23
119.05	congenital anomalies of skin	2	6	7	2	7	2	1	23
119.06	chromosomal anomalies	1	6	7	1	7	1	1 (0)	23
119.07	other congenital anomalies	1	6	7	2	7	2	1	23
120	GENERAL SYMPTOMS								
120.01	somatic/segmental dysfunction	1	6	5	2	5	2	1	6
120.02	dizziness and giddiness	1	6	5	2	5	2	1	6
120.03	malaise and fatigue	1	6	5	2	5	2	1	6
120.04	other general symptoms	1	6	5	2	5	2	1	6
121	COMA/ SYNCOPE								
121.01	coma	5	6	6	4	6	5	8	5
121.02	syncope (fainting) and collapse	3	6	6	4	6	4	3	5

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
122	FEVER								
122.01	fever	3	10	8	2	8	2	3	7
123	RESPIRATORY/OTHER CHEST SYMPTOMS								
123.01	dyspnea (labored breathing)/other resp abnormalities	3	5	4	4	4	4	1	5
123.02	hemoptysis (coughing up blood)	4	5	4	4	4	4	1	5
123.03	cough	1	5	4	2	4	2	1	5
123.04	respiratory/other chest symptoms	3	5	4	2	4	2	1	5
124	CARDIOVASCULAR SYMPTOMS								
124.01	chest pain	3	5	4	2	4	2	1	4
124.02	other cardiovascular symptoms	1	5	4	2	4	2	1	4
125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS								
125.01	retention of urine	5	7	7	4	7	4	5	6
125.02	incontinence/urethral discharge	3	7	7	4	7	4	1	6
125.03	other urinary system symptoms	1	7	7	2	7	2	1	6
125.04	abdominal/pelvis symptoms	3	7	7	2	7	2	1	6
126	VERTEBRAL INJURY								
126.01	vertebral fracture without spinal cord injury	5	7	6	4	6	4	3	10
126.02	vertebral fracture with spinal cord injury	6	7	6	6	6	6	3	10
127	FRACTURES OF SKULL/FACE/NASAL BONE								
127.01	fractures of skull/face	1	3	2	2	2	2	3	14
127.02	fractures of nasal bone	3	3	2	2	2	2	1	14
128	PELVIC FRACTURE								
128.01	pelvic fracture	5	5	4	4	4	4	8	10
129	FEMORAL FRACTURE								
129.01	femoral fracture	5	6	4	4	4	4	8	17
130	LOWER LIMB FRACTURES (E.G., LEG, ANKLE, FOOT)								
130.01	fractures of lower limb (e.g., leg, ankle, foot)	1	3	2	2	2	2	1	8

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
131	FRACTURE/DISLOCATION								
131.01	shoulder dislocation	3	4	4	2	4	2	1	8
131.02	dislocation of hip	6	4	6	6	6	6	17	8
131.03	dislocation of knee, including cartilage/meniscus tear	3	4	4	2	4	2	2	8
131.04	other dislocations	1	4	4	1	4	1	1	8
131.05	fracture of rib, closed	3	4	4	4	4	4	1	8
131.06	hand/wrist/lower arm fracture	1	4	4	2	4	2	1	8
131.07	other fractures	1	4	4	2	4	2	1	8
132	INTERNAL AND/OR OPEN WOUND								
132.01	foreign body in pharynx/larynx	3	3	4	4	4	4	1	10
132.02	injury to heart/lung/intrathoracic organs/blood vessels of thorax	3 (1)	3	2	2	2	2	3	10
132.03	gastrointestinal/liver/kidney/spleen/pelvis injury	5	3	4	4	4	4	3	10
132.04	open wound of eye	1	3	2	2	2	2	1	10
132.05	open wound/injury of lower arm	1	3	2	2	2	2	1	10
132.06	open wound of other sites	1	3	2	2	2	2	1	10
132.07	traumatic amputation of leg/hand/foot/toe	8	3	6	6	6	6	4	10
132.08	crushing injury	2	3	1	1	1	1	1	10
132.09	foreign body in eye/ear/nose	1	3	1	1	2	2	1	10
133	SPRAINS								
133.01	sprains	1	4	4	2	4	2	1	6
134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS								
134.01	concussion	3	5	4	2	4	2	1	6
134.02	contusion/superficial injury	1	5	4	2	4	2	1	6
134.03	accidental falls	2	5	4	4	4	4	1	6
134.04	attempted suicide/self-inflicted injury	10	5	10	10	10	10	14	6
134.05	other accidents	1	5	4	1	4	1	1	6
135	INTRACRANIAL INJURY								
135.01	intracranial injury	3	4	2	2	2	2	3	23
136	BURNS/NERVE, SPINAL CORD INJURES								
136.01	third degree burns	5	8	7	6	7	4	5	23
136.02	other burns	1	8	7	2	7	2	1	23
136.03	nerve injury (including spinal cord injury without spinal bone injury)	1	8	7	2	7	2	1	23
136.04	early complications of trauma	1	8	7	2 (1)	7	2 (1)	1	23

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
137	POISONING/TOXIC EFFECTS								
137.01	accidental poisoning by prescription or over-the-counter medications/biological substances, including medication errors	5	7	6	4	6	2	3	7
137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	1	7	6	2	8	2	1	7
137.03	poisoning by other nonmedicinal substances	1	7	6	1	6	1	1 (0)	7
137.04	allergy, unspecified	1	7	6	2	6	2	0	7
137.05	adverse effects of correctly prescribed and administered drugs in therapeutic use	1	7	6	2	8	2	1	7
138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE								
138.01	malfunction of internal orthopedic device/graft	5	7	6	6	6	6	4	23
138.02	infection/inflammation due to internal device/graft, transplant failure/rejection	14	7	14	14	12	12	27	23
138.03	other complications of certain specified medical procedures	5	7	6	6	6	6	14	23
138.04	other complications of medical and surgical procedures, nec (e.g., post-operative infection)	3	7	6	2	6	2	14	23
138.05	misadventure or abnormal reaction/complication of patient during surgery or medical care	3 (1)	7	6	2 (1)	6	2 (1)	17	23
139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES								
139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	5	8	6	5	5	5	3	23
139.02	other organ transplant	1	8	6	2	4	2	1	23
139.03	heart, heart valve replacement by artificial device	4	8	6	4	4	4	3	23
139.04	joint replacement	5	8	6	4	4	4	8	23
139.05	other organ replacement	4	8	6	4	4	4	3	23
139.06	artificial opening status/attention	7	8	6	6	6	6	6	23
139.07	postsurgical states, eye	5	8	6	4	4	4	6	23
139.08	other postsurgical states, including dialysis status	3	8	6	4	4	4	3	23
139.09	aspirator, respirator, other machine dependence	17	8	17	17	8	8	40	23
140	REHABILITATION PROCEDURES								
140.01	rehabilitation procedures	3	8	8	4	8	4	14	31
141	RADIOTHERAPY								
141.01	radiation therapy	3	10	2	2	2	2	6	23
142	CHEMOTHERAPY								
142.01	chemotherapy	10	23	23	4	23	4	4	31

TABLE E-1

DIAGNOSTIC COST GROUPS BY DIAGNOSTIC CATEGORY, FOR ALTERNATIVE DCG MODELS

				EDCG		EDCGP			
DXG	LABEL	ADDCG	PIPDCG	PIP EDCG	NON-PIP EDCG	PIP EDCGP	NON-PIP EDCGP	CONCURRENT ADDCG	CONCURRENT PIPDCG
143	HISTORY OF DISEASE/AFTERCARE/SCREENING								
143.01	infectious disease contact/carrier	1	6	2 (6)	2	2 (6)	2	1	14
143.02	vaccination, medical exam, other preventive	1	6	1 (6)	1	1 (6)	1	0	14
143.03	history of malignant neoplasm	1	6	2 (6)	2	2 (6)	2	1	14
143.04	history of mental disorder/other disease	1	6	2 (6)	2	2 (6)	2	1	14
143.05	history of drug allergy/other health hazard	1	6	1 (6)	1	1 (6)	1	1	14
143.06	family history of disease	1	6	1 (6)	1	1 (6)	1	1	14
143.07	problems of internal organs/external sites	1	6	1 (6)	1	1 (6)	1	2	14
143.08	elective surgery	3	6	2 (6)	2	2 (6)	2	3	14
143.09	prothesis/other device fitting, adjustment	5	6	4 (6)	4	4 (6)	4	3	14
143.10	other orthopedic aftercare	1	6	1 (6)	1	2 (6)	2	* 3	14
143.11	aftercare	1	6	1 (6)	1	1 (6)	1	1	14
143.12	donor	5	6	4 (6)	4	4 (6)	4	14	14
143.13	household/family/other psychosocial circumstances	1	6	1 (6)	1	1 (6)	1	3	14
143.14	care not delivered	3	6	4 (6)	4	4 (6)	4	3	14
143.15	administrative/consultation	1	6	1 (6)	1	1 (6)	1	1	14
143.16	screening for malignant neoplasm	1	6	1 (6)	1	1 (6)	1	0	14
143.17	screening/observation/special exams	1	6	1 (6)	1	1(6)	1	1	14
P1	emergency intubation/mechanical ventilation					6	6		
P2	dialysis					31	31		
P3	gastrostomy					17	17		
P4	enterostomy					14	14		
P5	tracheostomy					31	31		
P6	amputation					14	14		
P7	venous access port					20	20		

* No DCG assignment was made by the sorting algorithm. All beneficiaries in the sample with a diagnosis in this DXG also had a higher cost diagnosis in another DXG which caused assignment to that DXG.

NOTE: Numbers in parentheses are the DCG assignment generated by the sorting algorithm. The PIP EDCGs and PIP EDCGPs for DXG 143 were judged by the physician consultant team to be highly discretionary with regard to the decision to admit to the hospital and were thus reassigned to be equal to the NON-PIP EDCG(P). The remainder of the DCG reassignments were made because the sorting algorithm assignment was based on a low frequency of cases. The reassignment was made to bring the DCG in line with the average for the DXG.

SOURCE: 1991 and 1992 Medicare claims.

APPENDIX F:

PROSPECTIVE HIERARCHICAL COEXISTING CONDITION MODELS

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
HOSPITAL AND PHYSICIAN DIAGNOSES						
1	**High Cost Infectious Disease**		None			
2.01	septicemia/shock	10				
3.01	HIV/AIDS (including pneumocytosis)	10				
2	**Moderate Cost Infectious Diseases**		None		Out	
1.01	central nervous system infection (e.g., meningitis, encephalitis)	1				
4.04	tuberculosis	3				
4.07	bacterial infection in other diseases	5				
4.14	thrush	3				
3	**Other Infectious Disease**		None		Out	Out
4.02	viral enteritis (intestinal infections)	1				
4.03	other intestinal infections	1				
4.05	strep throat/scarlet fever	1				
4.06	other bacterial infections	1				
4.08	herpes zoster (shingles)	1				
4.09	herpes simplex	1				
4.10	viral hepatitis	1				
4.11	other viral infections	1				
4.12	late syphilis, symptomatic	1				
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	3				
4.15	mycoses (fungal diseases), miscellaneous	1				
4.16	other infections	1				
5.01	infection late effects	1				
4	**Metastatic Cancer**		Neoplasm			
19.01	secondary cancer of lymph node	6				
19.02	secondary cancer of respiratory and digestive systems	14				
19.03	secondary cancer of other site	10				
19.04	disseminated cancer	5				
5	**High Cost Cancers**		Neoplasm	If in HCC 4 cannot be in HCC 5.		
6.02	cancer of pharynx	10				
7.01	cancer of esophagus	14				
7.04	cancer of liver	14				
7.05	cancer of pancreas	10				
10.01	lung cancer	10				
12.02	multiple myeloma	8				
12.04	myeloid leukemia	10				
6	**Moderate Cost Cancers**		Neoplasm	If in HCC 4 or 5 cannot be in HCC 6.		
6.01	cancer of mouth/tongue	5				
6.03	cancer of larynx	4				
6.04	other respiratory/intrathoracic cancer	1				
7.02	cancer of stomach	5				
7.03	cancer of small bowel/peritoneum	7				
7.06	other, unspecified cancer of digestive organs/peritoneum	4				
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	5				
12.03	lymphoid leukemia	6				
12.05	other leukemia	3				
14.01	cancer of ovaries/placenta/uterine adnexia	4				
16.01	cancer of bladder/kidney/urinary organs	5				
17.02	cancer of the brain/nervous system/pituitary, pineal glands	5				
18.01	cancer of bone and articular cartilage	5				
7	**Lower Cost Cancers**		Neoplasm	If in HCC 4 or 5 or 6 cannot be in HCC 7.		
8.01	colon cancer	3				
9.01	rectal cancer	4				
11.01	breast cancer	1				
13.01	cancer of uterus	1				
13.02	cancer of cervix/female genital organs	3				
15.01	prostate cancer	3				
15.02	cancer of testis/male genital organs	3				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
7 Lower Cost Cancers (continued)						
17.01	cancer of the eye	1				
18.02	cancer of connective and other soft tissue	3				
18.03	melanoma	1				
18.05	thyroid/endocrine cancer	3				
18.06	other/ill-defined site cancer	3				
8 Carcinoma In Situ			Neoplasm	If in HCC 4 or 5 or 6 or 7 then cannot be in HCC 8.	Out	
21.01	carcinoma in situ of digestive organs	4				
21.02	carcinoma in situ of respiratory system	1				
21.03	carcinoma in situ of other sites, except skin	3				
9 Uncertain Neoplasm			Neoplasm	If in HCC 4 or 5 or 6 or 7 or 8 then cannot be in HCC 9.	Out	Out
21.04	neoplasm of uncertain behavior, specified sites	3				
21.05	neoplasm of uncertain behavior nec/nos	1				
21.06	unspecified neoplasm	2				
10 Skin Cancer, except Melanoma			Neoplasm	If in HCC 4 or 5 or 6 or 7 or 8 or 9 then cannot be in HCC 10.	Out	Out
18.04	skin cancer, except melanoma, including lip	1				
11 Benign Neoplasm			Neoplasm	If in HCC 4 or 5 or 6 or 7 or 8 or 9 or 10 then cannot be in HCC 11.	Out	Out
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	5				
20.01	benign neoplasm of digestive system	1				
20.02	benign neoplasm of respiratory system	3				
20.03	benign neoplasm of skin	1				
20.04	benign neoplasm of breast/other breast disorders	1				
20.05	benign neoplasm of urinary tract	1				
20.06	benign neoplasm of eye	1				
20.07	other benign neoplasms	1				
12 High Cost Diabetes			Diabetes			
24.01	diabetes with renal manifestation	10				
24.02	diabetes with other specified complications	8				
25.01	hypoglycemic coma	10				
13 Lower Cost Diabetes			Diabetes	If in HCC 12 then cannot be in HCC 13.		
22.01	diabetes without complications	3				
23.01	diabetes with acute complications	3				
24.03	diabetes with unspecified complications	5				
93.01	diabetic retinopathy	5				
93.02	proliferative diabetic retinopathy	5				
14 Protein-Calorie Malnutrition			None			
27.09	protein-calorie malnutrition	10				
15 Other Higher Cost Endocrine, Metabolic, Nutritional Disorders			None		Out	Out
26.01	disorders of fluid/electrolyte/acid-base balance	5				
27.04	adrenal gland disorders, e.g., Cushing's syndrome	5				
27.12	disorders of plasma protein metabolism	5				
16 Other Lower Cost Endocrine, Metabolic, Nutritional Disorders			None		Out	Out
25.02	other hypoglycemia	1				
27.01	goiter	1				
27.02	thyrotoxicosis, including Graves' disease	1				
27.03	thyroid disorders	1				
27.05	ovarian dysfunction	1				
27.06	testicular dysfunction	3				
27.07	other endocrine disorders	1				
27.08	pituitary/parathyroid/thymus/polyglandular disorders	3				
27.10	vitamin/other nutritional deficiencies (e.g., rickets, scurvy)	1				
27.11	disorders of lipoid metabolism (high cholesterol)	1				
27.13	disorders of mineral metabolism	1				
27.14	metabolism disorders, nec/nos	1				
27.15	other hyperalimentation	3				
27.16	obesity/localized adiposity	1				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
17 Liver Disease			None			
29.01	end stage liver disorders	14				
29.02	esophageal varices	14				
30.01	cirrhosis	5				
18 High Cost Gastrointestinal Disorders			Gastrointestinal			
28.02	chronic pancreatitis/other pancreatic diseases/intestinal malabsorption	5				
32.02	ulcer with perforation	5				
37.01	regional enteritis (Crohn's disease)	3				
37.02	ulcerative colitis	3				
38.01	intestinal obstruction	5				
38.02	peritonitis	4				
19 Moderate Cost Gastrointestinal Disorders			Gastrointestinal	If in HCC 18 then cannot be in HCC 19	Out	
4.01	bacterial enteritis (intestinal infections)	3				
28.01	acute pancreatitis	3				
30.02	other liver disorders, including toxic hepatitis	3				
32.01	ulcer without perforation	3				
33.01	pyloric/duodenal obstruction	1				
34.01	appendicitis	3				
35.01	abdominal hernia, complicated	3				
38.03	other peritoneal disorders	5				
40.03	intestinal abcess/ulceration/perforation	3				
41.01	cholelithiasis (gallstones)	3				
41.02	biliary tract disease	3				
41.03	other gallbladder disorders	3				
42.01	gastrointestinal hemorrhage	3				
20 Lower Cost Gastrointestinal Disorders			Gastrointestinal	If in HCC 18 or 19 then cannot be in HCC 20.	Out	Out
31.01	disease of esophagus	1				
33.02	gastritis/other gastric disorder (stomach disorders)	1				
35.01	abdominal hernia/uncomplicated	1				
39.01	diverculа of intestine	1				
40.01	hemorrhoids	1				
40.02	anal/rectal disorders	1				
40.04	other intestinal disorders	3				
21 Bone and Joint Infections			None			
45.01	arthropathy with infection	1				
45.02	osteomyelitis	5				
22 Rheumatoid Arthritis and Connective Tissue Disease			Musculoskeletal			
44.01	systemic lupus erythematosus, scleroderma, and other connective tissue disease	3				
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	3				
23 Other Musculoskeletal and Connective Tissue Disorders			Musculoskeletal	If in HCC 22 then cannot be in HCC 23.	Out	Out
43.01	gout/crystal arthropathy	1				
43.02	other arthropathy/joint disorders, derangements, joint pain/stiffness	3				
44.03	inflammatory spondylopathies	1				
44.04	polymyalgia rheumatica	2				
46.01	osteoarthritis	3				
47.01	back disorders (e.g., herniated disc, lumbago, sciatica, backache)	1				
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	1				
49.01	osteoporosis	3				
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	3				
49.03	flat foot, acquired deformities of toe	1				
49.04	other acquired limb deformities	1				
119.04	congenital anomalies of musculoskeletal/limb	3				
24 Aplastic and Acquired Hemolytic Anemias			Hematological			
51.02	acquired hemolytic anemia	10				
51.03	aplastic anemia	14				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
25 Blood/Immune Disorders			Hematological	If in HCC 24 then cannot be in HCC 25.		
51.01	sickle cell and other hereditary hemolytic anemias	1				
51.04	hemophilia and other coagulation defects	5				
51.05	purpura/thrombocytopathy/hemorrhagic conditions	3				
51.06	white blood cell disorders	3				
51.07	immune disorders	5				
26 Iron Deficiency and Other/Unspecified Anemias			Hematological	If in HCC 24 or 25 then cannot be in HCC 26.	Out	Out
50.01	iron deficiency and other/unspecified anemias	3				
51.08	other blood disease	3				
27 Dementia			None		Out	Out
52.01	senile/presenile psychoses	5				
52.02	other organic psychotic conditions	3				
52.03	cerebral degeneration/Alzheimer's disease	5				
52.04	senility without psychosis	4				
28 Drug/Alcohol Dependence/Psychoses			Mental Disorders			
53.01	alcoholic psychoses	8				
53.02	drug psychoses	8				
59.01	alcohol dependence	5				
59.02	drug dependence	8				
29 Higher Cost Mental Disorders			Mental Disorders	If in HCC 28 then cannot be in HCC 29.		
54.01	delirium/delusions/hallucinations	8				
54.02	hallucinations, symptomatic	5				
55.01	schizophrenic disorders	3				
56.01	manic and depressive disorders, including major depressive disorder	5				
57.01	paranoid states	5				
57.02	other nonorganic psychoses	5				
60.01	personality disorders	6				
134.04	attempted suicide/self-inflicted injury	10				
30 Lower Cost Mental Disorders			Mental Disorders	If in HCC 28 or 29 then cannot be in HCC 30.	Out	Out
58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	1				
59.03	non-dependent abuse of drugs	1				
60.02	sexual deviations and disorders	2				
60.03	psychophysiologic disorders	1				
60.04	acute reaction to stress	2				
60.05	adjustment reaction	3				
60.06	nonpsychotic organic brain syndrome	3				
60.07	depression, not elsewhere classified	3				
60.08	behavior disorder	1				
60.09	developmental behavioral disorders	1				
60.10	mental retardation	1				
60.11	other mental disorders	2				
31 Quadriplegia/Paraplegia			Nervous System			
63.03	quadriplegia	10				
63.04	paraplegia	10				
32 Higher Cost Neurological Disorders			Nervous System	If in HCC 31 then cannot be in HCC 32.		
62.01	Parkinson's Disease	5				
62.02	Huntington's Disease, essential tremor, other abnormal movement disorders	1				
62.03	anterior horn cell disease, including Lou Gehrig's Disease (ALS)	5				
62.04	other spinal cord disease	5				
62.05	autonomic nerve disorder	6				
62.06	Tay-Sachs, other hereditary and degenerative central nervous system diseases	5				
63.01	multiple sclerosis, other central nervous system dymelination	3				
63.05	cauda equina syndrome	5				
63.06	other paralytic disorders	3				
63.08	other central nervous system disorders	5				
64.01	epilepsy and other seizure disorders/convulsions	1				
66.01	peripheral neuropathy	5				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
32 Higher Cost Neurological Disorders (continued)						
66.02	inflammatory/toxic neuropathy, including Guillain-Barre Syndrome	8				
66.03	myoneural disorders/myasthenia gravis	3				
66.04	muscular dystrophies	8				
67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	5				
95.05	paralysis of vocal cords/larynx	7				
119.01	spina bifida, other congenital anomalies of nervous system	5				
33 Lower Cost Neurological Disorders			Nervous System	If in HCC 31 or 32 then cannot be in HCC 33.	Out	Out
63.02	infantile cerebral palsy	1				
65.01	trigeminal nerve disorders	2				
65.02	facial nerve disorders, including Bell's Palsy	1				
65.03	root/plexus disorders	1				
65.04	root/plexus lesions	2				
65.05	other cranial nerve disorders	1				
65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	1				
65.07	neuropathy of leg	1				
66.05	other neuropathy	1				
34 Respiratory Arrest			Cardio-Respiratory Arrest			
105.02	respiratory arrest	17				
35 Heart Arrest/Shock			Cardio-Respiratory Arrest	If in HCC 34 then cannot also be in HCC 35.		
79.01	heart arrest/shock	1				
36 Respiratory Failure			Cardio-Respiratory Arrest	If in HCC 34 or 35 then cannot also be in HCC 36.		
105.01	respiratory failure	7				
104.03	acute lung edema nos	14				
104.04	post trauma/surgery pulmonary insufficiency	8				
37 Congestive Heart Failure			Heart			
75.01	pulmonary embolism (blood clot)	3				
75.02	other pulmonary heart disease	7				
80.01	heart failure	7				
81.03	cardiomyopathy/myocarditis	3				
38 Heart Arrhythmia			Heart	If in 37 then cannot be in HCC 38.		
77.01	atrial arrhythmia	3				
78.01	ventric tachycardia	8				
39 Valvular and Rheumatic Heart Disease			Heart	If in HCC 37 or 38 then cannot be in HCC 39.		
68.01	rheumatic fever/heart disease	7				
68.02	mitral or aortic valve/endocardia disease	3				
68.03	mitral/aortic valve disorders	7				
81.02	acute endo/myocarditis	1				
40 Coronary Artery Disease			Heart	If in HCC 37 or 38 then cannot be in HCC 40.		
71.01	myocardial infarction	5				
71.02	old myocardial infarction	5				
71.03	other chronic ischemic heart disease	3				
72.01	acute myocardial infarction (heart attack)	7				
73.01	other acute ischemia	5				
74.01	angina pectoris	3				
41 Other Heart Disorders			Heart	If in HCC 37 or 38 or 39 or 40 then cannot be in HCC 41.	Out	Out
76.01	conduction disorders/cardiac dysrhythmias	3				
81.01	pericarditis, post-MI	3				
119.03	congenital anomalies of cardiac/circulatory systems	3				
42 Hypertensive Heart Disease			Heart	If in HCC 37 or 38 or 39 or 40 or 41 then cannot be in HCC 42	Out	Out
69.02	hypertensive heart disease	1				
70.02	malignant hypertensive heart disease	3				
70.03	hypertensive heart and renal disease	3				
70.05	hypertension encephalopathy	3				
43 Heart Disease, Miscellaneous			Heart	If in HCC 37 or 38 or 39 or 40 or 41 or 42 then cannot be in HCC 43.	Out	Out
76.02	premature heart beats	3				
81.04	cardiomegaly (enlarged heart)	5				
81.05	other heart disease	3				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
44	**Hypertension (High Blood Pressure)**		Heart	If in HCC 37 or 38 or 39 or 40 or 41 or 42 or 43 then cannot be in HCC 44.	Out	Out
69.01	essential hypertension	1				
70.01	malignant hypertension	1				
70.04	secondary hypertension	1				
45	**Cerebrovascular Disease (Stroke)**					
5.02	cerebrovascular disease late effects	5				
82.01	cerebral hemorrhage	5				
83.01	precerebral arterial occlusion	3				
84.01	cerebrovascular accident (stroke)	5				
84.02	hemiplegia (paralysis of one side of body)	8				
84.03	aphasia (loss of language skills/comprehension)	8				
85.01	transient cerebral ischemia	3				
46	**Vascular Disease**		Vascular			
86.01	atherosclerosis/arteriosclerosis of major vessel	5				
86.02	atherosclerosis/general, arteriosclerotic cardiovascular disease, arteriosclerosis/general	3				
87.01	aortic aneurysm	5				
87.02	other aneurysm	5				
88.01	arterial embolism and thrombosis (blood clots)	7				
89.01	specified peripheral vascular disease	5				
89.03	peripheral vascular disease	5				
89.04	other arterial disease	5				
89.06	vascular insufficiency of intestines	7				
89.07	gangrene	12				
47	**Other Circulatory Disease**		Vascular	If in HCC 46 then cannot be in HCC 47.	Out	Out
89.02	Raynaud's syndrome	1				
89.05	disease of capillaries	1				
90.01	phlebitis and thrombophlebitis	1				
90.02	noninfectious lymphatic disorders	3				
90.03	hemorrhage nos	1				
90.04	compression of vein	1				
91.01	hypotension (low blood pressure)	3				
92.01	superficial phlebitis-leg	3				
92.02	varicose veins	1				
92.03	other circulatory disease/postphlebitic syndrome	5				
92.04	other specified circulatory disorders	3				
48	**Chronic Obstructive Pulmonary Disease**		Lung			
96.01	emphysema/chronic bronchitis	3				
101.01	asthma	3				
49	**Higher Cost Pneumonia**		Lung			
99.01	gram-negative/staphylococcus pneumonia	10				
100.01	pneumococcal and other specific bacterial pneumonia	5				
102.02	aspiration pneumonia	14				
104.01	empyema/abscess of lung	8				
50	**Lower Cost Pneumonia**		Lung	If in HCC 49 then cannot be in HCC 50.	Out	
98.01	viral pneumonia	3				
100.02	other and unspecified pneumonia	3				
51	**Pleurisy/Fibrosis of Lungs**		Lung	If in HCC 48 or 49 or 50 then cannot be in HCC 51.	Out	
102.01	bronchiectasis/lung diseases due to specified external agents (e.g., black lung disease)	3				
102.03	respiratory conditions due to other and unspecified external agents/postinflammatory fibrosis	3				
103.01	pleurisy/pneumothorax (collapsed lung)	3				
52	**Other Lung Disease**		Lung	If in HCC 48 or 49 or 50 or 51 then cannot be in HCC 52.	Out	Out
97.01	other bronchitis	1				
98.02	influenza	1				
104.02	pulmonary congestion/hypostasis	3				
104.05	other lung disease	3				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCO	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
53 Eye, Ear, Nose, and Throat Disorders			None		Out	Out
93.03	endophthalmitis (eye inflammation)	1				
93.04	retinal disorders	1				
93.05	glaucoma	1				
93.06	cataract/lens replacement	1				
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	1				
93.08	vitreous hemorrhage	2				
93.09	other eye disorders	1				
94.01	impacted earwax	1				
94.02	otitis media (middle ear infection)	1				
94.03	vertiginous syndromes (e.g., vertigo, Meniere's Disease)	1				
94.04	hearing loss	1				
94.05	other ear disorders	1				
95.01	acute nose/throat infection (e.g., common cold)	1				
95.02	nasal polyps/allergic rhinitis (e.g., hay fever)	1				
95.03	chronic sinusitis	1				
95.04	larynx/vocal cord diseases	3				
95.06	disorders of teeth, gum, and jaw (e.g., gingivitis, periodontitis)	1				
95.07	other diseases of upper respiratory system	1				
95.08	salivary gland diseases	3				
95.09	other oral soft tissue/tongue/jaw disorders	1				
119.02	congenital anomalies of eye	1				
54 Renal Failure			Urinary			
106.01	nephritis, dialysis encounter	7				
106.02	acute renal failure	14				
106.03	chronic renal failure	10				
106.04	renal failure, unspecified	7				
55 Other Urinary Track Disorders			Urinary	If in HCC 54 then cannot be in HCC 55.	Out	Out
106.05	impaired renal function	5				
107.01	kidney infection	1				
108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	1				
109.01	urethral stricture	3				
109.02	hydronephrosis/other renal/urethral disorders	3				
110.01	cystitis, other urinary tract infections	1				
111.01	other urinary disorders	3				
56 Genital Disorders			None		Out	Out
112.01	hyperplasia of prostate	1				
112.02	other prostatic disorders	1				
112.03	penis/testis/male genital organs disorders	1				
113.01	diseases of female pelvic organs	1				
113.02	vaginal and cervical diseases	1				
113.03	other diseases of female genital organs	1				
113.04	female stress incontinence	1				
113.05	menopausal and postmenopausal disorders	1				
114.01	genital prolapse	1				
57 Pregnancy/Perinatal Conditions			None		Out	Out
115.01	pregnancy/birth complications, mother/child	1				
115.02	pregnancy with abortive outcome	3				
115.03	normal pregnancy/delivery	1				
58 Chronic Ulcer of Skin			Skin			
117.01	chronic ulcer of skin	5				
59 Other Dermatological Disorders			Skin	If in HCC 58 then cannot be in HCC 59.	Out	Out
116.01	cellulitis/abscess/other local skin infection	3				
116.02	bullous dermatoses	3				
118.01	dermatitis due to substances taken internally (e.g., food, drugs)	1				
118.02	psoriasis and similar disorders	1				
118.03	other dermatosis	1				
118.04	diseases of nail (e.g., ingrown toenail)	3				
118.05	other dermatological disorders	1				
119.05	congenital anomalies of skin	2				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
60	**Hip and Vertebral Fractures**		Injury			
126.01	vertebral fracture without spinal cord injury	5				
126.02	vertebral fracture with spinal cord injury	6				
128.01	pelvic fracture	5				
129.01	femoral fracture	5				
61	**Higher Cost Injuries and Poisonings**		Injury			
131.02	dislocation of hip	6				
131.03	dislocation of knee, including cartilage/meniscus tear	3				
132.02	injury to heart/lung/intrathoracic organs/blood vessels of thorax	1				
132.03	gastrointestinal/liver/kidney/spleen/pelvis injury	5				
132.07	traumatic amputation of leg/hand/foot/toe	8				
135.01	intracranial (head) injury	3				
136.01	third degree burns	5				
137.01	accidental poisoning by prescription or over-the-counter medications/biological substances, including medication errors	5				
62	**Lower Cost Injuries and Poisonings**		Injury	If in HCC 60 or 61 then cannot be in HCC 62.	Out	Out
5.03	injury late effects	1				
127.01	fractures of skull/face	1				
127.02	fractures of nasal bone	3				
130.01	fractures of lower limb (e.g., leg, ankle, foot)	1				
131.01	shoulder dislocation	3				
131.04	other dislocations	1				
131.05	fracture of rib, closed	3				
131.06	hand/wrist/lower arm fracture	1				
131.07	other fractures	1				
132.01	foreign body in pharynx/larynx	3				
132.04	open wound of eye	1				
132.05	open wound/injury of lower arm	1				
132.06	open wound of other sites	1				
132.08	crushing injury	2				
132.09	foreign body in eye/ear/nose	1				
133.01	sprains	1				
134.01	concussion	3				
134.02	contusion/superficial injury	1				
134.03	accidental falls	2				
134.05	other accidents	1				
136.02	other burns	1				
136.03	nerve injury (including spinal cord injury without spinal bone injury)	1				
136.04	early complications of trauma	1				
137.02	poisoning by specified nonmedicinal substances/ injury by certain external causes	1				
137.03	poisoning by other nonmedicinal substances	1				
137.04	allergy, unspecified	1				
137.05	adverse effects of correctly prescribed and administered drugs in therapeutic use	1				
63	**Complications of Medical and Surgical Care**		None		Out	
138.01	malfunction of internal orthopedic device/graft	5				
138.02	infection/inflammation due to internal device/graft, transplant failure/rejection	14				
138.03	other complications of certain specified medical procedures	5				
138.04	other complications of medical and surgical procedures, nec (e.g., post-operative infection)	3				
138.05	misadventure or abnormal reaction/complication of patient during surgery or medical care	1				
64	**Coma**		None			
121.01	coma	5				
65	**Major Symptoms**		None		Out	Out
63.07	nervous/musculoskeletal system symptoms	3				
121.02	syncope (fainting) and collapse	3				
122.01	fever	3				
123.01	dyspnea (labored breathing)/other respiratory abnormalities	3				
123.02	hemoptysis (coughing up blood)	4				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC	ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
65 Major Symptoms (continued)					
123.04 respiratory/other chest symptoms	3				
124.01 chest pain	3				
125.01 retention of urine	5				
125.02 incontinence/urethral discharge	3				
125.04 abdominal/pelvis symptoms	3				
66 Minor Symptoms, Signs, Findings		None		Out	Out
61.01 headaches, including migraine	1				
119.06 chromosomal anomalies	1				
119.07 other congenital anomalies	1				
120.01 somatic/segmental dysfunction	1				
120.02 dizziness and giddiness	1				
120.03 malaise and fatigue	1				
120.04 other general symptoms	1				
123.03 cough	1				
124.02 other cardiovascular symptoms	1				
125.03 other urinary system symptoms	1				
143.01 infectious disease contact/carrier	1				
143.07 problems of internal organs/external sites	1				
143.13 household/family/other psychosocial circumstances	1				
143.14 care not delivered	3				
PROCEDURES, AND FACTORS INFLUENCING CONTACT WITH HEALTH SERVICES					
67 Heart, Lung, Kidney, Liver Transplant		Transplant		Out	
P9 heart, lung, kidney, liver transplant	--				
68 Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)		Transplant	If in HCC 67 cannot be in HCC 68	Out	
139.01 kidney, heart, heart valve (human/animal tissue), lung, liver transplant	5				
69 Other Organ Transplant/Replacement		None		Out	Out
139.02 other organ transplant	1				
139.03 heart, heart valve replacement by artificial device	4				
139.04 joint replacement	5				
139.05 other organ replacement	4				
70 Tracheostomy		Artificial Opening, Tracheostomy		Out	
P5 tracheostomy	31				
71 Gastrostomy		Artificial Opening		Out	
P3 gastrostomy	17				
72 Enterostomy		Artificial Opening		Out	
P4 enterostomy	14				
73 Artificial Opening Status/Attention		Artificial Opening	If in HCC 70 or 71 or 72 then cannot be in HCC 73	Out	
139.06 artificial opening status/attention	7				
74 Machine Dependence		Tracheostomy	If in HCC 70 then cannot be in HCC 74	Out	
139.09 aspirator, respirator, other machine dependence	8				
P1 intubation/mechanical ventilation	6				
75 Post-Surgical States/Aftercare/Rehabilitation Procedures		None		Out	Out
139.07 postsurgical states, eye	5				
139.08 other postsurgical states, including dialysis status	3				
140.01 rehabilitation procedures	3				
143.08 elective surgery	3				
143.09 prothesis/other device fitting, adjustment	5				
143.10 other orthopedic aftercare	1				
143.11 aftercare	1				
143.12 donor	5				
76 Radiation Therapy		Chemo-/ Radio-Therapy	If in HCC 78, then cannot be in HCC 76.	Out	Out
141.01 radiation therapy	3				
P10 radiation oncology	--				
77 Venous Access Port		None		Out	
P7 venous access port	20				

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC	ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
78 Chemotherapy		Chemo-/ Radio-Therapy		Out	
142.01 chemotherapy	10				
P8 chemotherapy	–				
79 Dialysis		None		Out	
P2 dialysis	31				
80 Major Surgical Amputations		None		Out	
P6 major surgical amputations	14				
81 Preventive/Screening/Observation/Special Exams		None		Out	Out
143.02 vaccination, medical exam, other preventive	1				
143.15 administrative/consultation	1				
143.16 screening for malignant neoplasm	1				
143.17 screening/observation/special exams	1				
82 History of Disease		None		Out	Out
143.03 history of malignant neoplasm	1				
143.04 history of mental disorder/other disease	1				
143.05 history of drug allergy/other health hazard	1				
143.06 family history of disease	1				
PRINCIPAL HOSPITAL INPATIENT DIAGNOSES*					
83 Very High Incremental Cost Principal Inpatient Diagnoses				Out	
4 metastatic cancer					
17 liver disease					
24 aplastic and acquired hemolytic anemias					
48 chronic obstructive pulmonary disease					
84 High Incremental Cost Principal Inpatient Diagnoses				Out	
5 high cost cancers					
12 high cost diabetes					
25 blood/immune disorders					
28 drug/alcohol dependence/psychoses					
29 higher cost mental disorders					
36 respiratory failure					
37 congestive heart failure					
58 chronic ulcer of the skin					
85 Moderate Incremental Cost Principal Inpatient Diagnoses				Out	Out
6 moderate cost cancers					
13 lower cost diabetes					
15 other higher cost endocrine, metabolic, nutritional disorders					
22 rheumatoid arthritis and connective tissue disease					
26 iron deficiency and other/unspecified anemias					
32 higher cost neurological disorders					
40 coronary artery disease					
42 hypertensive heart disease					
45 cerebrovascular disease					
52 other lung disease					
55 other urinary tract disorders					
59 other dermatological disorders					
86 Principal Inpatient Diagnosis of Chemotherapy				Out	
78 chemotherapy					
87 All Other Principal Inpatient Diagnoses				Out	Out

TABLE F-1

PROSPECTIVE HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC	ADDCG	HCC Hierarchy	Hierarchy Rule	STATUS FOR PAYMENT MODEL Basic	Augmented
OTHER RISK FACTORS					
Age/Sex					
Female: Younger than 65					
Female: 65-69					
Female: 70-74					
Female: 75-79					
Female: 80-84					
Female: 85 or older					
Male: Younger than 65					
Male: 65-69					
Male: 70-74					
Male: 75-79					
Male: 80-84					
Male: 85 or older					

* Principal inpatient HCCs are assigned using the same hierarchical rules as are employed for all hospital and physician diagnosis HCCs. E.g., someone with a principal inpatient diagnosis of metastatic cancer is excluded from the principal inpatient HCC of high cost cancers.

TABLE F-2

HIERARCHICAL COEXISTING CONDITIONS, PROCEDURES AND HOSPITALIZATIONS, AND AUGMENTED HIERARCHICAL COEXISTING CONDITIONS, PAYMENT MODELS

		HCCPH PAYMENT MODEL (R^2 =.0974)			HCCA PAYMENT MODEL (R^2 = .0880)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
-	Intercept	1,113	34	32.42	1,099	34	31.87
1	High Cost Infectious Disease	3,087	131	23.62	3,578	131	27.31
2	Moderate Cost Infectious Diseases	1,248	89	14.00	1,458	89	16.29
3	Other Infectious Disease	-	-	-	-	-	-
4	Metastatic Cancer	3,867	122	31.64	6,042	115	52.31
5	High Cost Cancers	3,268	139	23.51	4,041	139	29.11
6	Moderate Cost Cancers	1,738	88	19.79	2,047	88	23.32
7	Lower Cost Cancers	629	57	11.00	822	57	14.43
8	Carcinoma in Situ	460	201	2.29	474	202	2.34
9	Uncertain Neoplasm	-	-	-	-	-	-
10	Skin Cancer, except Melanoma	-	-	-	-	-	-
11	Benign Neoplasm	-	-	-	-	-	-
12	High Cost Diabetes	3,600	105	34.33	3,877	105	37.04
13	Lower Cost Diabetes	1,406	38	37.22	1,422	38	37.45
14	Protein-Calorie Malnutrition	2,369	174	13.63	3,621	170	21.24
15	Other Higher Cost Endocrine, Metabolic, Nutritional Disorders	-	-	-	-	-	-
16	Other Lower Cost Endocrine, Metabolic, Nutritional Disorders	-	-	-	-	-	-
17	Liver Disease	3,506	200	17.52	3,963	201	19.75
18	High Cost Gastrointestinal Disorders	1,819	82	22.16	2,042	82	24.87
19	Moderate Cost Gastrointestinal Disorders	729	46	15.70	772	47	16.56
20	Lower Cost Gastrointestinal Disorders	-	-	-	-	-	-
21	Bone and Joint Infections	1,680	155	10.80	1,872	156	12.00
22	Rheumatoid Arthritis and Connective Tissue Disease	1,469	76	19.34	1,423	76	18.64
23	Other Musculoskeletal and Connective Tissue Disorders	-	-	-	-	-	-
24	Aplastic and Acquired Hemolytic Anemias	4,256	244	17.47	5,263	244	21.55
25	Blood/Immune Disorders	855	93	9.17	1,184	93	12.66
26	Iron Deficiency and Other/Unspecified Anemias	-	-	-	-	-	-
27	Dementia	-	-	-	-	-	-
28	Drug/Alcohol Dependence/Psychoses	1,273	151	8.45	2,330	149	15.63
29	Higher Cost Mental Disorders	1,186	63	18.97	1,573	62	25.47

TABLE F-2

HIERARCHICAL COEXISTING CONDITIONS, PROCEDURES AND HOSPITALIZATIONS, AND AUGMENTED HIERARCHICAL COEXISTING CONDITIONS, PAYMENT MODELS

		HCCPH PAYMENT MODEL (R^2 =.0974)			HCCA PAYMENT MODEL (R^2 = .0880)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
30	Lower Cost Mental Disorders	-	-	-	-	-	-
31	Quadriplegia/Paraplegia	4,894	282	17.37	5,319	283	18.79
32	Higher Cost Neurological Disorders	1,414	52	27.12	1,478	52	28.21
33	Lower Cost Neurological Disorders	-	-	-	-	-	-
34	Respiratory Arrest	5,511	234	23.58	8,967	228	39.37
35	Heart Arrest/Shock	1,120	215	5.22	1,538	216	7.14
36	Respiratory Failure	1,720	84	20.47	2,514	83	30.11
37	Congestive Heart Failure	2,519	47	53.96	2,869	46	62.24
38	Heart Arrhythmia	1,219	71	17.23	1,215	71	17.10
39	Valvular and Rheumatic Heart Disease	765	80	9.53	743	81	9.22
40	Coronary Artery Disease	1,008	37	27.42	979	37	26.49
41	Other Heart Disorders	-	-	-	-	-	-
42	Hypertensive Heart Disease	-	-	-	-	-	-
43	Heart Disease, Miscellaneous	-	-	-	-	-	-
44	Hypertension (High Blood Pressure)	-	-	-	-	-	-
45	Cerebrovascular Disease (Stroke)	1,207	47	25.78	1,190	47	25.30
46	Vascular Disease	1,011	40	25.28	1,030	40	25.65
47	Other Circulatory Disease	-	-	-	-	-	-
48	Chronic Obstructive Pulmonary Disease	1,203	40	29.86	1,446	40	36.12
49	Higher Cost Pneumonia	2,576	127	20.30	3,038	127	23.89
50	Lower Cost Pneumonia	951	63	15.18	1,148	63	18.27
51	Pleurisy/Fibrosis of Lungs	650	104	6.23	891	105	8.51
52	Other Lung Disease	-	-	-	-	-	-
53	Eye, Ear, Nose, and Throat Disorders	-	-	-	-	-	-
54	Renal Failure	2,779	112	24.87	3,295	111	29.58
55	Other Urinary Track Disorders	-	-	-	-	-	-
56	Genital Disorders	-	-	-	-	-	-
57	Pregnancy/Perinatal Conditions	-	-	-	-	-	-
58	Chronic Ulcer of Skin	2,335	83	28.20	2,518	83	30.40
59	Other Dermatological Disorders	-	-	-	-	-	-

TABLE F-2

HIERARCHICAL COEXISTING CONDITIONS, PROCEDURES AND HOSPITALIZATIONS, AND AUGMENTED HIERARCHICAL COEXISTING CONDITIONS, PAYMENT MODELS

		HCCPH PAYMENT MODEL (R^2 =.0974)			HCCA PAYMENT MODEL (R^2 = .0880)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
60	Hip and Vertebral Fractures	1,037	82	12.69	929	82	11.32
61	Higher Cost Injuries and Poisonings	973	86	11.31	1,117	86	13.00
62	Lower Cost Injuries and Poisonings	-	-	-	-	-	-
63	Complications of Medical and Surgical Care	743	71	10.46	1,101	71	15.55
64	Coma	1,308	215	6.09	1,560	216	7.23
65	Major Symptoms	-	-	-	-	-	-
66	Minor Symptoms, Signs, Findings	-	-	-	-	-	-
67	Heart, Lung, Kidney, Liver Transplant	4,066	2,901	1.40	-	-	-
68	Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/histo	1,204	493	2.44	-	-	-
69	Other Organ Transplant/Replacement	-	-	-	-	-	-
70	Tracheostomy	24,760	582	42.54	-	-	-
71	Gastrostomy	5,196	321	16.20	-	-	-
72	Enterostomy	5,194	549	9.46	-	-	-
73	Artificial Opening Status/Attention	2,267	206	10.99	-	-	-
74	Machine Dependence	1,984	123	16.12	-	-	-
75	Post-Surgical States/Aftercare/Rehabilitation Procedures	-	-	-	-	-	-
76	Radiation Therapy	-	-	-	-	-	-
77	Venous Access Port	6,481	463	13.99	-	-	-
78	Chemotherapy	4,169	165	25.26	-	-	-
79	Dialysis	16,583	791	20.98	-	-	-
80	Major Surgical Amputations	1,985	416	4.77	-	-	-
81	Preventive/Screening/Observation/Special Exams	-	-	-	-	-	-
82	History of Disease	-	-	-	-	-	-
83	Very High Incremental Cost Principal Inpatient Diagnoses	5,726	153	37.38	-	-	-
84	High Incremental Cost Principal Inpatient Diagnoses	3,200	88	36.23	-	-	-
85	Moderate Incremental Cost Principal Inpatient Diagnoses	-	-	-	-	-	-
86	Principal Inpatient Diagnosis of Chemotherapy	6,123	696	8.80	-	-	-
87	All Other Principal Inpatient Diagnoses	-	-	-	-	-	-

TABLE F-2

HIERARCHICAL COEXISTING CONDITIONS, PROCEDURES AND HOSPITALIZATIONS, AND AUGMENTED HIERARCHICAL COEXISTING CONDITIONS, PAYMENT MODELS

		HCCPH PAYMENT MODEL (R^2 =.0974)			HCCA PAYMENT MODEL (R^2 = .0880)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
	AGE/SEX						
	FEMALE, < 65	573	73	7.80	639	74	8.66
	FEMALE, 70-74	258	46	5.62	245	46	5.32
	FEMALE, 75-79	669	49	13.79	630	49	12.91
	FEMALE, 80-84	1,000	54	18.54	931	54	17.19
	FEMALE, 85 OR OLDER	1,136	57	20.05	1,045	57	18.35
	MALE, < 65	229	62	3.71	287	62	4.64
	MALE, 65-69	376	50	7.51	365	50	7.24
	MALE, 70-74	697	50	13.98	683	50	13.63
	MALE, 75-79	1,155	55	20.82	1,120	56	20.08
	MALE, 80-84	1,362	68	20.12	1,302	68	19.14
	MALE, 85 OR OLDER	1,770	82	21.48	1,655	83	19.98

SOURCE: 1991 (Diagnoses) and 1992 (Expenditures) Medicare claims

TABLE F-3

HIERARCHICAL COEXISTING CONDITIONS CLASSIFICATION MODELS

		HCCP CLASSIFICATION MODEL (R^2 =.0972)			HCC CLASSIFICATION MODEL (R^2 = .0913)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
-	Intercept	743	39	18.96	754	39	19.33
1	High Cost Infectious Disease	2,742	131	20.89	3,256	131	24.79
2	Moderate Cost Infectious Diseases	1,032	90	11.48	1,087	90	12.05
3	Other Infectious Disease	138	39	3.56	128	39	3.30
4	Metastatic Cancer	4,020	124	32.48	5,669	116	48.85
5	High Cost Cancers	3,212	140	23.00	3,764	139	27.09
6	Moderate Cost Cancers	1,420	89	15.91	1,774	88	20.06
7	Lower Cost Cancers	388	60	6.49	625	58	10.76
8	Carcinoma in Situ	245	202	1.22	266	202	1.32
9	Uncertain Neoplasm	196	68	2.87	196	68	2.88
10	Skin Cancer, except Melanoma	26	81	0.32	57	81	0.70
11	Benign Neoplasm	-210	40	-5.27	-217	40	-5.47
12	High Cost Diabetes	3,674	105	35.01	3,690	105	35.20
13	Lower Cost Diabetes	1,314	38	34.41	1,312	38	34.26
14	Protein-Calorie Malnutrition	2,135	175	12.24	3,282	171	19.19
15	Other Higher Cost Endocrine, Metabolic, Nutritional Disorders	938	55	16.95	996	55	17.95
16	Other Lower Cost Endocrine, Metabolic, Nutritional Disorders	-294	32	-9.32	-309	32	-9.76
17	Liver Disease	3,787	200	18.96	3,763	200	18.78
18	High Cost Gastrointestinal Disorders	1,405	84	16.77	1,608	84	19.23
19	Moderate Cost Gastrointestinal Disorders	428	49	8.78	448	49	9.18
20	Lower Cost Gastrointestinal Disorders	204	36	5.72	217	36	6.09
21	Bone and Joint Infections	1,544	156	9.92	1,673	156	10.72
22	Rheumatoid Arthritis and Connective Tissue Disease	1,421	78	18.30	1,410	78	18.12
23	Other Musculoskeletal and Connective Tissue Disorders	358	28	12.86	354	28	12.72
24	Aplastic and Acquired Hemolytic Anemias	4,624	244	18.97	5,102	244	20.90
25	Blood/Immune Disorders	828	94	8.83	1,038	94	11.05
26	Iron Deficiency and Other/Unspecified Anemias	347	46	7.46	374	47	8.03
27	Dementia	59	71	0.82	48	72	0.67
28	Drug/Alcohol Dependence/Psychoses	2,002	149	13.45	2,021	149	13.54
29	Higher Cost Mental Disorders	1,410	63	22.30	1,376	63	21.69
30	Lower Cost Mental Disorders	109	53	2.05	104	53	1.95

TABLE F-3

HIERARCHICAL COEXISTING CONDITIONS CLASSIFICATION MODELS

		HCCP CLASSIFICATION MODEL (R^2 =.0972)			HCC CLASSIFICATION MODEL (R^2 = .0913)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
31	Quadriplegia/Paraplegia	4,591	282	16.27	4,928	283	17.43
32	Higher Cost Neurological Disorders	1,198	53	22.73	1,244	53	23.54
33	Lower Cost Neurological Disorders	328	85	3.86	330	85	3.86
34	Respiratory Arrest	6,458	233	27.69	8,856	227	38.93
35	Heart Arrest/Shock	1,065	215	4.96	1,342	215	6.24
36	Respiratory Failure	2,034	84	24.33	2,312	84	27.68
37	Congestive Heart Failure	2,591	49	52.84	2,603	49	53.13
38	Heart Arrhythmia	996	73	13.73	1,016	73	13.99
39	Valvular and Rheumatic Heart Disease	605	81	7.47	608	81	7.50
40	Coronary Artery Disease	844	40	21.36	841	40	21.28
41	Other Heart Disorders	309	71	4.34	308	71	4.32
42	Hypertensive Heart Disease	302	94	3.22	299	94	3.18
43	Heart Disease, Miscellaneous	477	108	4.42	487	108	4.51
44	Hypertension (High Blood Pressure)	91	34	2.68	82	34	2.43
45	Cerebrovascular Disease (Stroke)	952	47	20.08	978	48	20.59
46	Vascular Disease	847	41	20.78	876	41	21.45
47	Other Circulatory Disease	247	66	3.77	295	66	4.49
48	Chronic Obstructive Pulmonary Disease	1,253	41	30.80	1,245	41	30.55
49	Higher Cost Pneumonia	2,402	127	18.86	2,753	127	21.61
50	Lower Cost Pneumonia	862	63	13.66	899	63	14.20
51	Pleurisy/Fibrosis of Lungs	511	105	4.88	612	105	5.83
52	Other Lung Disease	158	44	3.61	162	44	3.68
53	Eye, Ear, Nose, and Throat Disorders	-26	26	-1.01	-29	26	-1.13
54	Renal Failure	2,749	113	24.37	3,125	112	27.81
55	Other Urinary Track Disorders	397	37	10.84	385	37	10.50
56	Genital Disorders	-186	35	-5.23	-197	36	-5.54
57	Pregnancy/Perinatal Conditions	733	149	4.92	784	150	5.24
58	Chronic Ulcer of Skin	2,378	84	28.32	2,432	84	28.98
59	Other Dermatological Disorders	205	31	6.60	201	31	6.44
60	Hip and Vertebral Fractures	651	84	7.80	656	83	7.88
61	Higher Cost Injuries and Poisonings	862	87	9.94	953	87	11.02

TABLE F-3

HIERARCHICAL COEXISTING CONDITIONS CLASSIFICATION MODELS

		HCCP CLASSIFICATION MODEL (R^2 =.0972)			HCC CLASSIFICATION MODEL (R^2 = .0913)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
62	Lower Cost Injuries and Poisonings	247	33	7.53	259	33	7.88
63	Complications of Medical and Surgical Care	356	72	4.92	832	71	11.71
64	Coma	1,099	215	5.11	1,286	216	5.96
65	Major Symptoms	635	31	20.41	650	31	21.00
66	Minor Symptoms, Signs, Findings	208	29	7.14	221	29	7.62
67	Heart, Lung, Kidney, Liver Transplant	5,185	2,902	1.79	-	-	-
68	Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/histo	860	495	1.74	-	-	-
69	Other Organ Transplant/Replacement	492	115	4.29	-	-	-
70	Tracheostomy	24,658	582	42.34	-	-	-
71	Gastrostomy	4,983	321	15.51	-	-	-
72	Enterostomy	5,145	549	9.37	-	-	-
73	Artificial Opening Status/Attention	2,107	207	10.20	-	-	-
74	Machine Dependence	2,123	130	16.38	-	-	-
75	Post-Surgical States/Aftercare/Rehabilitation Procedures	350	57	6.10	-	-	-
76	Radiation Therapy	-187	221	-0.85	-	-	-
77	Venous Access Port	7,089	463	15.32	-	-	-
78	Chemotherapy	4,509	163	27.71	-	-	-
79	Dialysis	16,667	791	21.08	-	-	-
80	Major Surgical Amputations	2,729	416	6.56	-	-	-
81	Preventive/Screening/Observation/Special Exams	11	28	0.40	-	-	-
82	History of Disease	0	60	0.00	-	-	-
83	Very High Incremental Cost Principal Inpatient Diagnoses	-	-	-	-	-	-
84	High Incremental Cost Principal Inpatient Diagnoses	-	-	-	-	-	-
85	Moderate Incremental Cost Principal Inpatient Diagnoses	-	-	-	-	-	-
86	Principal Inpatient Diagnosis of Chemotherapy	-	-	-	-	-	-
87	All Other Principal Inpatient Diagnoses	-	-	-	-	-	-

TABLE F-3

HIERARCHICAL COEXISTING CONDITIONS CLASSIFICATION MODELS

		HCCP CLASSIFICATION MODEL (R^2 =.0972)			HCC CLASSIFICATION MODEL (R^2 = .0913)		
HCC	LABEL	COEFF	STD. ERR	T-STAT	COEFF	STD. ERR	T-STAT
	AGE/SEX						
	FEMALE, < 65	595	74	8.07	586	74	7.92
	FEMALE, 70-74	207	46	4.50	200	46	4.35
	FEMALE, 75-79	554	49	11.35	531	49	10.84
	FEMALE, 80-84	822	55	15.08	777	55	14.20
	FEMALE, 85 OR OLDER	925	58	15.98	860	58	14.82
	MALE, < 65	369	63	5.89	363	63	5.77
	MALE, 65-69	438	51	8.62	438	51	8.60
	MALE, 70-74	725	51	14.31	728	51	14.34
	MALE, 75-79	1,144	56	20.33	1,135	56	20.11
	MALE, 80-84	1,304	68	19.05	1,275	69	18.57
	MALE, 85 OR OLDER	1,664	83	19.98	1,585	83	18.98

SOURCE: 1991 (Diagnoses) and 1992 (Expenditures) Medicare claims

TABLE F-4

ESTIMATED PROSPECTIVE HCC PAYMENT MODEL PARAMETERS FOR AGED AND DISABLED SUBSAMPLES

		AGED SUBSAMPLE (R^2 = .0835)		DISABLED SUBSAMPLE (R^2 = .1217)		DIFFERENCE DISABLED-AGED	
HCC	LABEL	COEFF	STD. ERR	COEFF	STD. ERR	VALUE	t-TEST
	INTERCEPT	$1,192	$35	$953	$62	-$239	-3.37
1	High Cost Infectious Disease	3,888	137	6,169	422	2,282	5.15
4	Metastatic Cancer	6,297	118	7,066	577	770	1.31
5	High Cost Cancers	4,274	143	3,817	559	- 457	-0.79
6	Moderate Cost Cancers	2,189	90	1,957	374	- 232	-0.60
7	Lower Cost Cancers	902	58	1,370	345	468	1.34
12	High Cost Diabetes	3,850	110	4,327	340	477	1.34
13	Lower Cost Diabetes	1,441	39	1,455	143	14	0.10
14	Protein-Calorie Malnutrition	3,980	177	4,486	630	506	0.77
17	Liver Disease	4,022	219	5,262	498	1,239	2.28
18	High Cost Gastrointestinal Disorders	2,008	85	3,511	275	1,503	5.22
21	Bone and Joint Infections	1,850	166	3,422	452	1,572	3.27
22	Rheumatoid Arthritis and Connective Tissue Disease	1,498	81	1,640	239	141	0.56
24	Aplastic and Acquired Hemolytic Anemias	5,373	252	7,237	981	1,864	1.84
25	Blood/Immune Disorders	1,202	98	2,445	311	1,243	3.81
28	Drug/Alcohol Dependence/Psychoses	1,271	187	4,270	249	2,998	9.63
29	Higher Cost Mental Disorders	1,350	73	2,528	118	1,178	8.51
31	Quadriplegia/Paraplegia	5,643	434	4,975	380	- 668	-1.16
32	Higher Cost Neurological Disorders	1,594	58	1,414	127	- 180	-1.29
34	Respiratory Arrest	9,040	241	10,869	703	1,830	2.46
35	Heart Arrest/Shock	1,663	223	3,259	863	1,596	1.79
36	Respiratory Failure	2,732	87	3,391	294	659	2.15
37	Congestive Heart Failure	3,066	47	3,426	201	360	1.74
38	Heart Arrhythmia	1,338	72	1,572	433	234	0.53
39	Valvular and Rheumatic Heart Disease	795	83	893	334	98	0.29
40	Coronary Artery Disease	1,036	38	1,222	156	186	1.16
45	Cerebrovascular Disease (Stroke)	1,278	49	1,391	198	113	0.55
46	Vascular Disease	1,110	41	1,534	186	425	2.23
48	Chronic Obstructive Pulmonary Disease	1,505	41	2,122	142	617	4.18
49	Higher Cost Pneumonia	2,908	132	3,372	445	464	1.00
54	Renal Failure	3,413	115	4,313	428	900	2.03
58	Chronic Ulcer of Skin	2,528	86	3,838	292	1,310	4.31

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TABLE F-4

ESTIMATED PROSPECTIVE HCC PAYMENT MODEL PARAMETERS FOR AGED AND DISABLED SUBSAMPLES

		AGED SUBSAMPLE (R^2 = .0835)		DISABLED SUBSAMPLE (R^2 = .1217)		DIFFERENCE DISABLED-AGED	
HCC	LABEL	COEFF	STD. ERR	COEFF	STD. ERR	VALUE	t-TEST
60	Hip and Vertebral Fractures	1,147	84	1,263	389	116	0.29
61	Higher Cost Injuries and Poisonings	1,159	92	1,664	235	505	2.00
64	Coma	1,706	230	1,608	632	- 98	-0.15
	AGE/SEX						
	FEMALE, < 65	1,249	274	338	86	--	--
	FEMALE, 70-74	252	46	--	--	--	--
	FEMALE, 75-79	642	49	--	--	--	--
	FEMALE, 80-84	948	54	--	--	--	--
	FEMALE, 85 OR OLDER	1,068	57	--	--	--	--
	MALE, < 65	781	231	--	--	--	--
	MALE, 65-69	363	50	--	--	--	--
	MALE, 70-74	689	50	--	--	--	--
	MALE, 75-79	1,139	56	--	--	--	--
	MALE, 80-84	1,320	68	--	--	--	--
	MALE, 85 OR OLDER	1,693	83	--	--	--	--

SOURCE: 1992 (expenditures) and 1991 (diagnoses) Medicare claims.

APPENDIX G:

GEOGRAPHIC INPUT PRICE INDEX

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
0040	Abilene, TX MSA	0.906	0	0.907	0.929	0.829
0060	Aguadilla, PR MSA	0.478	0	0.766	0.666	0.366
0080	Akron, OH PMSA	0.931	0	0.980	0.958	1.140
0120	Albany, GA MSA	0.896	0	0.933	0.929	0.876
0160	Albany-Schenectady-Troy, NY MSA	0.875	0	1.000	0.933	0.852
0200	Albuquerque, NM MSA	0.940	0	0.952	0.957	0.858
0220	Alexandria, LA MSA	0.828	0	0.915	0.889	0.936
0240	Allentown-Bethlehem-Easton, PA MSA	1.023	0	0.987	1.010	1.093
0280	Altoona, PA MSA	0.931	0	0.910	0.943	0.900
0320	Amarillo, TX MSA	0.838	0	0.928	0.897	0.816
0380	Anchorage, AK MSA	1.313	0	1.131	1.246	1.050
0440	Ann Arbor, MI PMSA	1.275	0	1.071	1.163	1.119
0450	Anniston, AL MSA	0.802	0	0.915	0.874	0.924
0460	Appleton-Oshkosh-Neenah, WI MSA	0.875	0	0.956	0.923	0.715
0470	Arecibo, PR PMSA	0.376	0	0.780	0.612	0.345
0480	Asheville, NC MSA	0.892	0	0.914	0.923	0.784
0500	Athens, GA MSA	0.881	0	0.944	0.923	0.911
0520	Atlanta, GA MSA	1.024	1	1.008	1.017	1.080
0560	Atlantic-Cape May, NJ PMSA	1.073	0	1.047	1.050	1.135
0600	Augusta-Aiken, GA-SC MSA	0.866	0	0.952	0.918	0.900
0640	Austin-San Marcos, TX MSA	0.904	0	0.977	0.943	0.834
0680	Bakersfield, CA MSA	1.095	0	0.992	1.049	1.104
0720	Baltimore, MD PMSA	0.996	1	1.030	1.007	1.236
0733	Bangor, ME NECMA	0.963	0	0.942	0.967	0.760
0743	Barnstable-Yarmouth, MA NECMA	1.344	0	1.061	1.197	0.990
0760	Baton Rouge, LA MSA	0.860	0	0.942	0.912	1.131
0840	Beaumont-Port Arthur, TX MSA	0.871	0	0.969	0.924	1.240
0860	Bellingham, WA MSA	1.136	0	0.975	1.067	0.772
0870	Benton Harbor, MI MSA	0.793	0	0.990	0.886	0.886
0875	Bergen-Passaic, NJ PMSA	1.139	1	1.115	1.102	1.038
0880	Billings, MT MSA	0.880	0	0.914	0.917	0.772
0920	Biloxi-Gulfport-Pascagoula, MS MSA	0.804	0	0.913	0.875	1.190
0960	Binghamton, NY MSA	0.906	0	0.958	0.940	0.830
1000	Birmingham, AL MSA	0.879	0	0.955	0.925	1.095
1010	Bismarck, ND MSA	0.862	0	0.903	0.904	0.858
1020	Bloomington, IN MSA	0.830	0	0.914	0.889	0.771
1040	Bloomington-Normal, IL MSA	0.844	0	0.936	0.902	0.719
1080	Boise City, ID MSA	0.894	0	0.927	0.927	0.701
1123	Boston-Worcester-Lawrence-Lowell-NECMA	1.155	1	1.076	1.102	1.127
1125	Boulder-Longmont, CO PMSA	0.971	0	0.978	0.979	0.921
1145	Brazoria, TX PMSA	0.858	0	1.000	0.924	1.073
1150	Bremerton, WA PMSA	0.971	0	0.968	0.977	0.823
1240	Brownsville-Harlingen-San Benito, TX MSA	0.831	0	0.903	0.887	0.830
1260	Bryan-College Station, TX MSA	0.865	0	0.922	0.910	0.812
1280	Buffalo-Niagara Falls, NY MSA	0.906	1	0.967	0.944	0.896
1303	Burlington, VT NECMA	0.967	0	0.978	0.977	0.832
1310	Caguas, PR PMSA	0.437	0	0.779	0.646	0.424
1320	Canton-Massillon, OH MSA	0.861	0	0.945	0.913	0.856

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
1350	Casper, WY MSA	0.849	0	0.923	0.901	0.838
1360	Cedar Rapids, IA MSA	0.859	0	0.928	0.908	0.725
1400	Champaign-Urbana, IL MSA	0.884	0	0.932	0.922	0.709
1440	Charleston-North Charleston, SC MSA	0.886	0	0.923	0.922	0.858
1480	Charleston, WV MSA	0.888	0	0.947	0.928	0.936
1520	Charlotte-Gastonia-Rock Hill, NC-SC MSA	0.941	1	0.947	0.959	0.834
1540	Charlottesville, VA MSA	0.943	0	0.970	0.962	0.890
1560	Chattanooga, TN-GA MSA	0.902	0	0.933	0.933	1.008
1580	Cheyenne, WY MSA	0.755	0	0.932	0.853	0.785
1600	Chicago, IL PMSA	1.066	1	1.058	1.051	1.140
1620	Chico-Paradise, CA MSA	1.044	0	0.953	1.013	0.967
1640	Cincinnati, OH-KY-IN PMSA	0.939	1	0.977	0.964	1.002
1660	Clarksville-Hopkinsville, TN-KY MSA	0.751	0	0.900	0.844	0.831
1680	Cleveland-Lorain-Elyria, OH PMSA	0.968	1	0.997	0.984	1.131
1720	Colorado Springs, CO MSA	0.921	0	0.950	0.946	0.871
1740	Columbia, MO MSA	0.922	0	0.940	0.945	0.882
1760	Columbia, SC MSA	0.901	0	0.933	0.932	0.787
1800	Columbus, GA-AL MSA	0.778	0	0.925	0.864	0.793
1840	Columbus, OH MSA	0.980	1	0.975	0.986	0.968
1880	Corpus Christi, TX MSA	0.845	0	0.939	0.903	1.022
1900	Cumberland, MD-WV MSA	0.828	0	0.922	0.890	1.116
1920	Dallas, TX PMSA	0.950	1	0.996	0.974	1.059
1950	Danville, VA MSA	0.798	0	0.901	0.869	0.722
1960	Davenport-Moline-Rock Island, IA-IL MSA	0.823	0	0.927	0.889	0.792
2000	Dayton-Springfield, OH MSA	0.929	0	0.973	0.956	0.958
2020	Daytona Beach, FL MSA	0.843	0	0.971	0.909	0.896
2030	Decatur, AL MSA	0.814	0	0.932	0.885	0.978
2040	Decatur, IL MSA	0.785	0	0.932	0.869	0.748
2080	Denver, CO PMSA	1.051	1	0.990	1.027	1.013
2120	Des Moines, IA MSA	0.875	0	0.948	0.921	0.853
2160	Detroit, MI PMSA	1.084	1	1.133	1.077	1.352
2180	Dothan, AL MSA	0.788	0	0.909	0.866	0.987
2190	Dover, DE MSA	0.921	0	0.966	0.950	0.837
2200	Dubuque, IA MSA	0.789	0	0.910	0.867	0.691
2240	Duluth-Superior, MN-WI MSA	0.922	0	0.932	0.943	0.712
2281	Dutchess County, NY PMSA	1.055	0	1.058	1.042	0.958
2290	Eau Claire, WI MSA	0.843	0	0.941	0.902	0.726
2320	El Paso, TX MSA	0.852	0	0.934	0.906	0.894
2330	Elkhart-Goshen, IN MSA	0.858	0	0.932	0.909	0.666
2335	Elmira, NY MSA	0.853	0	0.938	0.907	0.834
2340	Enid, OK MSA	0.827	0	0.887	0.882	0.779
2360	Erie, PA MSA	0.906	0	0.924	0.933	0.917
2400	Eugene-Springfield, OR MSA	1.063	0	0.944	1.021	0.739
2440	Evansville-Henderson, IN-KY MSA	0.911	0	0.913	0.933	0.829
2520	Fargo-Moorhead, ND-MN MSA	0.916	0	0.916	0.936	0.728
2560	Fayetteville, NC MSA	0.850	0	0.902	0.897	0.816
2580	Fayetteville-Springdale-Rogers, AR MSA	0.692	0	0.881	0.807	0.696
2640	Flint, MI PMSA	1.026	0	1.038	1.022	1.334

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
2650	Florence, AL MSA	0.769	0	0.918	0.857	0.932
2655	Florence, SC MSA	0.838	0	0.899	0.890	0.867
2670	Fort Collins-Loveland, CO MSA	0.969	0	0.949	0.972	0.817
2680	Fort Lauderdale, FL PMSA	1.067	1	1.097	1.059	1.352
2700	Fort Myers-Cape Coral, FL MSA	0.950	0	0.978	0.968	0.995
2710	Fort Pierce-Port St. Lucie, FL MSA	0.975	0	1.012	0.990	1.068
2720	Fort Smith, AR-OK MSA	0.793	0	0.887	0.864	0.817
2750	Fort Walton Beach, FL MSA	0.905	0	0.947	0.937	0.934
2760	Fort Wayne, IN MSA	0.863	0	0.921	0.909	0.708
2800	Fort Worth-Arlington, TX PMSA	0.956	1	0.971	0.972	0.942
2840	Fresno, CA MSA	1.047	0	0.970	1.019	0.800
2880	Gadsden, AL MSA	0.808	0	0.914	0.877	0.960
2900	Gainesville, FL MSA	0.885	0	0.966	0.931	0.887
2920	Galveston-Texas City, TX PMSA	1.031	0	0.998	1.016	1.183
2960	Gary, IN PMSA	0.961	0	0.947	0.967	1.117
2975	Glens Falls, NY MSA	0.901	0	0.967	0.940	0.805
2980	Goldsboro, NC MSA	0.860	0	0.888	0.900	0.791
2985	Grand Forks, ND-MN MSA	0.892	0	0.901	0.920	0.660
3000	Grand Rapids-Muskegon-Holland, MI MSA	0.986	0	1.020	0.997	0.787
3040	Great Falls, MT MSA	0.866	0	0.902	0.906	0.871
3060	Greeley, CO PMSA	0.917	0	0.934	0.941	0.879
3080	Green Bay, WI MSA	0.882	0	0.957	0.927	0.649
3120	Greensboro--Winston-Salem--High Pol	0.910	1	0.933	0.939	0.840
3150	Greenville, NC MSA	0.870	0	0.908	0.910	0.903
3160	Greenville-Spartanburg-Anderson, SC MSA	0.874	0	0.913	0.913	0.734
3180	Hagerstown, MD PMSA	0.905	0	0.956	0.939	0.821
3200	Hamilton-Middletown, OH PMSA	0.866	0	0.974	0.922	0.927
3240	Harrisburg-Lebanon-Carlisle, PA MSA	0.973	0	0.971	0.979	0.908
3283	Hartford, CT NECMA	1.209	1	1.090	1.134	1.018
3290	Hickory-Morganton, NC MSA	0.868	0	0.909	0.909	0.810
3320	Honolulu, HI MSA	1.173	0	1.093	1.157	0.877
3350	Houma, LA MSA	0.796	0	0.917	0.872	1.097
3360	Houston, TX PMSA	0.984	1	1.028	1.000	1.217
3400	Huntington-Ashland, WV-KY-OH MSA	0.877	0	0.926	0.917	0.861
3440	Huntsville, AL MSA	0.823	0	0.958	0.896	0.882
3480	Indianapolis, IN MSA	0.986	1	0.949	0.983	0.986
3500	Iowa City, IA MSA	0.917	0	0.939	0.942	0.720
3520	Jackson, MI MSA	0.925	0	1.020	0.964	0.975
3560	Jackson, MS MSA	0.748	0	0.940	0.851	0.794
3580	Jackson, TN MSA	0.822	0	0.905	0.883	0.831
3600	Jacksonville, FL MSA	0.887	0	0.989	0.937	1.072
3605	Jacksonville, NC MSA	0.700	0	0.873	0.810	0.862
3610	Jamestown, NY MSA	0.743	0	0.920	0.844	0.753
3620	Janesville-Beloit, WI MSA	0.853	0	0.958	0.912	0.767
3640	Jersey City, NJ PMSA	1.095	0	1.082	1.069	1.125
3660	Johnson City-Kingsport-Bristol, MSA	0.869	0	0.901	0.908	0.828
3680	Johnstown, PA MSA	0.869	0	0.900	0.907	1.094
3710	Joplin, MO MSA	0.779	0	0.902	0.859	0.774

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
3720	Kalamazoo-Battle Creek, MI MSA	1.048	0	1.017	1.029	0.914
3740	Kankakee, IL PMSA	0.925	0	0.935	0.945	0.988
3760	Kansas City, MO-KS MSA	0.944	1	0.981	0.967	1.048
3800	Kenosha, WI PMSA	0.863	0	0.978	0.922	0.921
3810	Killeen-Temple, TX MSA	1.049	0	0.925	1.010	0.759
3840	Knoxville, TN MSA	0.858	0	0.919	0.906	0.912
3850	Kokomo, IN MSA	0.894	0	0.928	0.927	0.977
3870	La Crosse, WI-MN MSA	0.855	0	0.937	0.908	0.654
3880	Lafayette, LA MSA	0.780	0	0.920	0.864	0.908
3920	Lafayette, IN MSA	0.821	0	0.901	0.882	0.715
3960	Lake Charles, LA MSA	0.826	0	0.939	0.893	1.056
3980	Lakeland-Winter Haven, FL MSA	0.841	0	0.956	0.905	0.784
4000	Lancaster, PA MSA	0.945	0	0.964	0.963	0.773
4040	Lansing-East Lansing, MI MSA	0.993	0	1.035	1.004	1.041
4080	Laredo, TX MSA	0.705	0	0.905	0.820	0.829
4100	Las Cruces, NM MSA	0.890	0	0.913	0.922	0.790
4120	Las Vegas, NV-AZ MSA	1.112	0	1.011	1.063	1.124
4150	Lawrence, KS MSA	0.844	0	0.929	0.900	0.755
4200	Lawton, OK MSA	0.856	0	0.903	0.901	0.795
4243	Lewiston-Auburn, ME NECMA	0.971	0	0.938	0.971	0.790
4280	Lexington, KY MSA	0.852	0	0.945	0.908	0.796
4320	Lima, OH MSA	0.855	0	0.928	0.906	0.776
4360	Lincoln, NE MSA	0.909	0	0.906	0.930	0.679
4400	Little Rock-North Little Rock, AR MSA	0.834	0	0.920	0.893	0.972
4420	Longview-Marshall, TX MSA	0.867	0	0.919	0.911	0.825
4480	Los Angeles-Long Beach, CA PMSA	1.253	1	1.101	1.160	1.388
4520	Louisville, KY-IN MSA	0.951	0	0.941	0.960	1.017
4600	Lubbock, TX MSA	0.867	0	0.922	0.911	1.172
4640	Lynchburg, VA MSA	0.824	0	0.919	0.887	0.676
4680	Macon, GA MSA	0.890	0	0.953	0.931	1.020
4720	Madison, WI MSA	0.990	0	1.000	0.995	0.805
4800	Mansfield, OH MSA	0.807	0	0.933	0.881	0.783
4840	Mayaguez, PR MSA	0.456	0	0.770	0.654	0.331
4880	McAllen-Edinburg-Mission, TX MSA	0.791	0	0.902	0.866	0.815
4890	Medford-Ashland, OR MSA	0.949	0	0.958	0.963	0.681
4900	Melbourne-Titusville-Palm Bay, FL MSA	0.871	0	1.000	0.931	1.030
4920	Memphis, TN-AR-MS MSA	0.841	1	0.935	0.902	0.991
4940	Merced, CA MSA	0.990	0	0.956	0.985	1.032
5000	Miami, FL PMSA	1.003	1	1.113	1.029	1.529
5015	Middlesex-Somerset-Hunterdon, NJ PMSA	1.053	1	1.111	1.055	1.069
5080	Milwaukee-Waukesha, WI PMSA	0.928	1	0.996	0.962	0.947
5120	Minneapolis-St. Paul, MN-WI MSA	1.076	1	0.996	1.042	0.877
5160	Mobile, AL MSA	0.763	0	0.923	0.855	1.000
5170	Modesto, CA MSA	1.130	0	0.981	1.065	0.972
5190	Monmouth-Ocean, NJ PMSA	1.069	1	1.061	1.053	1.049
5200	Monroe, LA MSA	0.772	0	0.916	0.859	1.049
5240	Montgomery, AL MSA	0.814	0	0.938	0.886	0.914
5280	Muncie, IN MSA	0.961	0	0.890	0.955	0.857

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
5330	Myrtle Beach, SC MSA	0.785	0	0.908	0.864	0.833
5345	Naples, FL MSA	0.946	0	1.012	0.974	0.910
5360	Nashville, TN MSA	0.938	1	0.947	0.957	1.070
5380	Nassau-Suffolk, NY PMSA	1.352	1	1.195	1.234	1.239
5483	New Haven-Bridgeport-Stamford NECMA	1.211	1	1.124	1.143	1.030
5523	New London-Norwich, CT NECMA	1.158	0	1.066	1.099	0.859
5560	New Orleans, LA MSA	0.959	1	0.975	0.974	1.343
5600	New York, NY PMSA	1.394	1	1.173	1.252	1.536
5640	Newark, NJ PMSA	1.187	1	1.104	1.125	1.131
5660	Newburgh, NY-PA PMSA	1.006	0	1.079	1.021	1.027
5720	Norfolk-Virginia Beach-Newport News MSA	0.829	1	0.949	0.898	0.938
5775	Oakland, CA PMSA	1.467	1	1.090	1.272	1.194
5790	Ocala, FL MSA	0.872	0	0.944	0.919	0.834
5800	Odessa-Midland, TX MSA	0.820	0	0.944	0.891	0.920
5880	Oklahoma City, OK MSA	0.848	0	0.926	0.902	0.884
5910	Olympia, WA PMSA	1.103	0	0.985	1.052	0.875
5920	Omaha, NE-IA MSA	0.984	0	0.925	0.975	0.917
5945	Orange County, CA PMSA	1.237	1	1.090	1.149	1.300
5960	Orlando, FL MSA	0.932	1	1.006	0.967	1.027
5990	Owensboro, KY MSA	0.786	0	0.903	0.863	0.824
6015	Panama City, FL MSA	0.738	0	0.938	0.845	0.961
6020	Parkersburg-Marietta, WV-OH MSA	0.792	0	0.920	0.870	0.884
6080	Pensacola, FL MSA	0.813	0	0.949	0.888	1.005
6120	Peoria-Pekin, IL MSA	0.828	0	0.937	0.894	0.802
6160	Philadelphia, PA-NJ PMSA	1.123	1	1.058	1.081	1.313
6200	Phoenix-Mesa, AZ MSA	1.005	1	1.000	1.005	1.095
6240	Pine Bluff, AR MSA	0.870	0	0.897	0.907	0.781
6280	Pittsburgh, PA MSA	0.992	1	0.961	0.989	1.228
6323	Pittsfield, MA NECMA	1.101	0	1.005	1.055	1.023
6360	Ponce, PR MSA	0.452	0	0.789	0.656	0.420
6403	Portland, ME NECMA	0.942	0	0.997	0.968	0.832
6440	Portland-Vancouver, OR-WA PMSA	1.112	1	0.976	1.057	0.893
6483	Providence-Warwick-Pawtucket, RI NECMA	1.085	1	1.065	1.062	0.988
6520	Provo-Orem, UT MSA	0.987	0	0.901	0.971	0.793
6560	Pueblo, CO MSA	0.811	0	0.919	0.880	0.828
6580	Punta Gorda, FL MSA	0.906	0	0.965	0.941	1.080
6600	Racine, WI PMSA	0.865	0	0.973	0.922	0.804
6640	Raleigh-Durham-Chapel Hill, NC MSA	0.963	0	0.960	0.971	0.901
6660	Rapid City, SD MSA	0.821	0	0.889	0.879	0.696
6680	Reading, PA MSA	0.926	0	0.970	0.954	0.870
6690	Redding, CA MSA	1.142	0	0.954	1.066	0.978
6720	Reno, NV MSA	1.107	0	1.015	1.061	0.947
6740	Richland-Kennewick-Pasco, WA MSA	0.958	0	0.975	0.972	0.850
6760	Richmond-Petersburg, VA MSA	0.938	0	0.974	0.961	0.965
6780	Riverside-San Bernardino, CA PMSA	1.173	1	1.015	1.098	1.156
6800	Roanoke, VA MSA	0.807	0	0.928	0.880	0.819
6820	Rochester, MN MSA	1.037	0	0.981	1.016	1.050
6840	Rochester, NY MSA	0.967	1	0.994	0.983	0.931

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
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		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
6880	Rockford, IL MSA	0.862	0	0.938	0.912	0.754
6895	Rocky Mount, NC MSA	0.839	0	0.893	0.890	0.836
6920	Sacramento, CA PMSA	1.224	1	1.022	1.127	1.057
6960	Saginaw-Bay City-Midland, MI MSA	0.939	0	1.022	0.972	0.952
6980	St. Cloud, MN MSA	0.963	0	0.928	0.964	0.668
7000	St. Joseph, MO MSA	0.870	0	0.918	0.912	0.821
7040	St. Louis, MO-IL MSA	0.908	1	0.982	0.948	1.013
7080	Salem, OR PMSA	0.932	0	0.938	0.950	0.723
7120	Salinas, CA MSA	1.377	0	1.026	1.207	0.966
7160	Salt Lake City-Ogden, UT MSA	0.950	1	0.933	0.960	0.806
7200	San Angelo, TX MSA	0.708	0	0.898	0.820	0.758
7240	San Antonio, TX MSA	0.826	1	0.948	0.897	0.974
7320	San Diego, CA MSA	1.199	1	1.024	1.114	1.140
7360	San Francisco, CA PMSA	1.407	1	1.140	1.251	1.076
7400	San Jose, CA PMSA	1.441	1	1.132	1.267	1.034
7440	San Juan-Bayamon, PR PMSA	0.436	1	0.803	0.652	0.420
7460	San Luis Obispo-Atascadero-Paso Rob	1.254	0	1.020	1.140	0.890
7480	Santa Barbara-Santa Maria-Lompoc, CA MSA	1.142	0	1.052	1.087	0.869
7485	Santa Cruz-Watsonville, CA PMSA	1.368	0	1.064	1.211	0.994
7490	Santa Fe, NM MSA	1.091	0	1.001	1.049	0.769
7500	Santa Rosa, CA PMSA	1.303	0	1.052	1.174	0.994
7510	Sarasota-Bradenton, FL MSA	0.963	0	0.991	0.978	0.935
7520	Savannah, GA MSA	0.937	0	0.955	0.956	1.037
7560	Scranton--Wilkes-Barre--Hazleton, PA MSA	0.861	0	0.933	0.910	1.011
7600	Seattle-Bellevue-Everett, WA PMSA	1.093	1	1.017	1.056	0.927
7610	Sharon, PA MSA	0.905	0	0.915	0.930	1.003
7620	Sheboygan, WI MSA	0.804	0	0.951	0.884	0.630
7640	Sherman-Denison, TX MSA	0.891	0	0.916	0.922	0.883
7680	Shreveport-Bossier City, LA MSA	0.905	0	0.933	0.934	0.913
7720	Sioux City, IA-NE MSA	0.859	0	0.903	0.903	0.796
7760	Sioux Falls, SD MSA	0.859	0	0.900	0.902	0.732
7800	South Bend, IN MSA	0.959	0	0.927	0.962	0.788
7840	Spokane, WA MSA	1.040	0	0.956	1.012	0.908
7880	Springfield, IL MSA	0.868	0	0.964	0.921	0.931
7920	Springfield, MO MSA	0.784	0	0.920	0.866	0.779
8003	Springfield, MA NECMA	1.029	0	1.017	1.019	0.963
8050	State College, PA MSA	1.002	0	0.952	0.990	0.877
8080	Steubenville-Weirton, OH-WV MSA	0.832	0	0.913	0.890	1.139
8120	Stockton-Lodi, CA MSA	1.138	0	1.003	1.075	0.987
8140	Sumter, SC MSA	0.780	0	0.881	0.855	0.726
8160	Syracuse, NY MSA	0.960	0	0.974	0.973	0.849
8200	Tacoma, WA PMSA	1.034	0	0.976	1.013	0.877
8240	Tallahassee, FL MSA	0.823	0	0.983	0.901	0.831
8280	Tampa-St. Petersburg-Clearwater, FL MSA	0.937	1	0.989	0.966	1.038
8320	Terre Haute, IN MSA	0.873	0	0.890	0.907	0.803
8360	Texarkana, TX-Texarkana, AR MSA	0.784	0	0.911	0.864	0.989
8400	Toledo, OH MSA	0.999	0	0.976	0.994	1.126
8440	Topeka, KS MSA	0.978	0	0.965	0.980	0.817

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
8480	Trenton, NJ PMSA	1.011	0	1.071	1.022	1.230
8520	Tucson, AZ MSA	0.947	0	0.977	0.967	0.993
8560	Tulsa, OK MSA	0.817	0	0.926	0.885	0.936
8600	Tuscaloosa, AL MSA	0.797	0	0.934	0.876	0.955
8640	Tyler, TX MSA	0.968	0	0.931	0.967	0.850
8680	Utica-Rome, NY MSA	0.840	0	0.945	0.902	0.772
8720	Vallejo-Fairfield-Napa, CA PMSA	1.298	0	1.033	1.167	1.095
8735	Ventura, CA PMSA	1.164	0	1.077	1.105	1.107
8750	Victoria, TX MSA	0.877	0	0.926	0.917	1.010
8760	Vineland-Millville-Bridgeton, NJ PMSA	1.015	0	1.005	1.009	1.086
8780	Visalia-Tulare-Porterville, CA MSA	1.042	0	0.956	1.013	0.839
8800	Waco, TX MSA	0.816	0	0.921	0.883	0.612
8840	Washington, DC-MD-VA-WV PMSA	1.111	1	1.088	1.082	1.099
8920	Waterloo-Cedar Falls, IA MSA	0.866	0	0.914	0.909	0.819
8940	Wausau, WI MSA	0.992	0	0.940	0.982	0.686
8960	West Palm Beach-Boca Raton, FL MSA	1.010	0	1.061	1.019	1.176
9000	Wheeling, WV-OH MSA	0.751	0	0.907	0.845	0.941
9040	Wichita, KS MSA	0.978	0	0.968	0.981	0.956
9080	Wichita Falls, TX MSA	0.775	0	0.904	0.858	0.743
9140	Williamsport, PA MSA	0.852	0	0.930	0.905	0.898
9160	Wilmington-Newark, DE-MD PMSA	1.083	0	1.036	1.052	1.089
9200	Wilmington, NC MSA	0.891	0	0.930	0.926	0.943
9260	Yakima, WA MSA	0.940	0	0.947	0.956	0.751
9270	Yolo, CA PMSA	1.157	0	0.986	1.081	0.944
9280	York, PA MSA	0.911	0	0.948	0.941	0.786
9320	Youngstown-Warren, OH MSA	0.932	0	0.942	0.951	1.061
9340	Yuba City, CA MSA	1.031	0	0.948	1.005	0.946
9360	Yuma, AZ MSA	0.844	0	0.974	0.911	0.912
9901	AL NONMETROPOLITAN AREA	0.695	0	0.893	0.812	0.884
9902	AK NONMETROPOLITAN AREA	1.257	0	1.116	1.213	0.917
9904	AZ NONMETROPOLITAN AREA	0.822	0	0.956	0.895	0.795
9905	AR NONMETROPOLITAN AREA	0.683	0	0.859	0.798	0.779
9906	CA NONMETROPOLITAN AREA	1.003	0	0.954	0.991	0.921
9908	CO NONMETROPOLITAN AREA	0.794	0	0.909	0.869	0.762
9909	CT NONMETROPOLITAN AREA	1.175	0	1.050	1.105	0.947
9910	DE NONMETROPOLITAN AREA	0.853	0	0.952	0.910	0.908
9912	FL NONMETROPOLITAN AREA	0.844	0	0.953	0.906	0.935
9913	GA NONMETROPOLITAN AREA	0.750	0	0.910	0.846	0.862
9915	HI NONMETROPOLITAN AREA	0.963	0	1.050	1.035	0.734
9916	ID NONMETROPOLITAN AREA	0.825	0	0.897	0.883	0.723
9917	IL NONMETROPOLITAN AREA	0.736	0	0.887	0.833	0.754
9918	IN NONMETROPOLITAN AREA	0.787	0	0.888	0.860	0.793
9919	IA NONMETROPOLITAN AREA	0.732	0	0.880	0.829	0.696
9920	KS NONMETROPOLITAN AREA	0.723	0	0.894	0.827	0.782
9921	KY NONMETROPOLITAN AREA	0.749	0	0.891	0.840	0.854
9922	LA NONMETROPOLITAN AREA	0.732	0	0.891	0.831	0.924
9923	ME NONMETROPOLITAN AREA	0.850	0	0.936	0.905	0.713
9924	MD NONMETROPOLITAN AREA	0.860	0	0.958	0.915	0.844

TABLE G-1

ALTERNATIVE GEOGRAPHIC ADJUSTMENT FACTORS BY METROPOLITAN AREA:
GEOGRAPHIC INPUT PRICE INDEX (GIPI) AND COMPONENTS, AND INDEXED MEDICARE CAPITATION PAYMENT (IAAPCC)

		COMPONENTS OF GIPI				
Metropolitan Area Code*	Metropolitan Area	PPS Hospital Wage Index**	1=Large Urban Area	1996 MFS Geographic Adjustment Factor***	GIPI	IAAPCC****
9925	MA NONMETROPOLITAN AREA	1.045	0	1.010	1.026	0.893
9926	MI NONMETROPOLITAN AREA	0.868	0	0.972	0.923	0.859
9927	MN NONMETROPOLITAN AREA	0.801	0	0.894	0.870	0.655
9928	MS NONMETROPOLITAN AREA	0.651	0	0.879	0.785	0.834
9929	MO NONMETROPOLITAN AREA	0.725	0	0.890	0.827	0.747
9930	MT NONMETROPOLITAN AREA	0.815	0	0.900	0.878	0.755
9931	NE NONMETROPOLITAN AREA	0.729	0	0.849	0.820	0.611
9932	NV NONMETROPOLITAN AREA	0.916	0	0.981	0.951	0.799
9933	NH NONMETROPOLITAN AREA	0.975	0	0.981	0.982	0.796
9935	NM NONMETROPOLITAN AREA	0.815	0	0.893	0.876	0.724
9936	NY NONMETROPOLITAN AREA	0.863	0	0.950	0.915	0.822
9937	NC NONMETROPOLITAN AREA	0.764	0	0.889	0.848	0.791
9938	ND NONMETROPOLITAN AREA	0.740	0	0.869	0.831	0.753
9939	OH NONMETROPOLITAN AREA	0.816	0	0.924	0.884	0.818
9940	OK NONMETROPOLITAN AREA	0.681	0	0.870	0.799	0.749
9941	OR NONMETROPOLITAN AREA	0.921	0	0.917	0.939	0.739
9942	PA NONMETROPOLITAN AREA	0.865	0	0.916	0.909	0.930
9944	RI NONMETROPOLITAN AREA	1.061	0	1.071	1.048	0.903
9945	SC NONMETROPOLITAN AREA	0.750	0	0.891	0.841	0.719
9946	SD NONMETROPOLITAN AREA	0.690	0	0.849	0.799	0.674
9947	TN NONMETROPOLITAN AREA	0.748	0	0.879	0.837	0.905
9948	TX NONMETROPOLITAN AREA	0.746	0	0.893	0.839	0.829
9949	UT NONMETROPOLITAN AREA	0.877	0	0.905	0.913	0.788
9950	VT NONMETROPOLITAN AREA	0.891	0	0.936	0.927	0.717
9951	VA NONMETROPOLITAN AREA	0.775	0	0.898	0.856	0.819
9953	WA NONMETROPOLITAN AREA	0.955	0	0.929	0.960	0.827
9954	WV NONMETROPOLITAN AREA	0.803	0	0.901	0.872	0.884
9955	WI NONMETROPOLITAN AREA	0.824	0	0.925	0.888	0.670
9956	WY NONMETROPOLITAN AREA	0.799	0	0.918	0.874	0.778
9972	PR NONMETROPOLITAN AREA	0.439	0	0.755	0.641	0.379
9966	GU NONMETROPOLITAN AREA	-	-	-	-	0.416
9978	VI NONMETROPOLITAN AREA	-	-	-	-	0.374

* Metropolitan Statistical Area (MSA), Primary Metropolitan Statistical Area (PMSA), New England County Metropolitan Area (NECMA), or state nonmetropolitan area code. The latter code is "99xx" where "xx" is the state FIPS code.

** Based on FY1991 hospital wage data.

*** Medicare Fee Schedule Geographic Adjustment Factor (GAF) to be implemented on January 1, 1998. This version not rescaled for budget neutrality.

**** Based on 1995 elderly Part A plus Part B AAPCC rates, weighted by 1993 county Medicare enrollment.

SOURCE: For PPS hospital wages and large urban areas: Health Care Financing Administration. For GAF: Health Economics Research, Inc.

APPENDIX H

CONCURRENT DIAGNOSTIC GROUP (DXGROUP) AND HIERARCHICAL COEXISTING CONDITIONS STATISTICS

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
–	ENTIRE 2.5% MODEL DEVELOPMENT SAMPLE	680,188	$3,783	$13	273
-1	DIAG CODE NOT VALID	10	27,398	6,522	75
-1.0	diag code not valid	5,032	9,711	260	190
0	NO INPATIENT CLAIMS IN DATA	35,521	816	3	226
0.0	no claims in any data	71,102	49	3	1,780
INFECTIOUS AND PARASITIC DISEASES					
1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS, ENCEPHALITIS)	121	27,797	2,394	95
1.01	central nervous system infection (e.g., meningitis, encephalitis)	1,872	14,862	554	161
2	SEPTICEMIA/SHOCK (BLOOD POISONING)	3,464	28,387	478	99
2.01	septicemia/shock (blood poisoning)	11,212	29,246	345	125
3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	47	39,154	6,299	110
3.01	HIV/AIDS (including pneumocytosis)	500	18,714	1,542	184
4	OTHER INFECTIOUS AND PARASITIC DISEASES	1,584	21,503	697	129
4.01	bacterial enteritis (intestinal infections)	1,531	21,832	789	141
4.02	viral enteritis (intestinal infections)	2,290	8,350	317	182
4.03	other intestinal infections	2,488	10,217	385	188
4.04	tuberculosis	2,118	10,476	430	169
4.05	strep throat/scarlet fever	1,189	4,855	292	207
4.06	other bacterial infections	1,104	13,025	696	176
4.07	bacterial infection in other diseases	11,359	18,951	203	114
4.08	herpes zoster (shingles)	7,288	5,515	129	199
4.09	herpes simplex	2,097	7,225	321	204
4.10	viral hepatitis	769	12,961	768	164
4.11	other viral infections	13,770	5,220	100	225
4.12	late syphilis, symptomatic	322	11,721	1,137	174
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	54,540	6,688	59	195
4.14	thrush	1,463	16,548	577	133
4.15	mycoses (fungal diseases), miscellaneous	3,119	13,923	472	189
4.16	other infections	8,919	9,833	204	196
LATE EFFECTS					
5	LATE EFFECTS	289	30,182	1,391	78
5.01	infection late effects	684	11,953	674	148
5.02	cerebrovascular disease late effects	11,550	14,816	181	131
5.03	injury late effects	1,769	13,931	432	130
MALIGNANT NEOPLASM					
6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	312	29,466	1,421	85
6.01	cancer of mouth/tongue	1,121	13,201	627	159
6.02	cancer of pharynx	756	16,799	671	143
6.03	cancer of larynx	1,043	12,889	668	167
6.04	other respiratory/intrathoracic cancer	529	15,517	1,039	154
7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	969	33,487	1,054	98
7.01	cancer of esophagus	592	22,572	1,254	135
7.02	cancer of stomach	1,065	21,119	794	123
7.03	cancer of small bowel/peritoneum	818	22,008	784	102
7.04	cancer of liver	1,120	22,024	750	114
7.05	cancer of pancreas	1,041	21,665	909	135
7.06	other cancer of digestive organs/peritoneum	656	16,469	800	124
8	COLON CANCER	1,440	24,496	477	74
8.01	colon cancer	7,149	13,001	209	136
9	RECTAL CANCER	570	24,585	643	62
9.01	rectal cancer	5,714	13,318	234	133
10	LUNG CANCER	1,773	29,930	547	77
10.01	lung cancer	7,537	18,023	253	122

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
MALIGNANT NEOPLASM	(continued)				
11	BREAST CANCER	1,394	11,180	283	95
11.01	breast cancer	13,646	5,881	94	187
12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	827	35,017	1,043	86
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	3,519	12,796	340	158
12.02	multiple myeloma	1,202	13,907	544	136
12.03	lymphoid leukemia	1,682	11,195	498	182
12.04	myeloid leukemia	623	21,110	1,270	150
12.05	other leukemia	1,206	16,711	747	155
13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	500	16,856	677	90
13.01	cancer of uterus	1,942	8,611	323	165
13.02	cancer of cervix/female genital organs	1,308	9,778	451	167
14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	196	29,452	1,453	69
14.01	cancer of ovaries/placenta/uterine adnexia	1,321	15,364	559	132
15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	2,036	14,494	286	89
15.01	prostate cancer	17,347	7,844	100	168
15.02	cancer of testis/male genital organs	406	11,429	797	141
16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	1,012	20,226	583	92
16.01	cancer of bladder/kidney/urinary organs	6,343	9,949	210	168
17	NEOPLASM OF NERVOUS SYSTEM	336	31,969	1,175	67
17.01	cancer of the eye	335	6,417	645	184
17.02	cancer of the brain/nervous system/pituitary, pineal glands	2,439	16,789	457	135
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	1,679	11,408	405	145
18	OTHER CANCER	440	21,296	982	97
18.01	cancer of bone and articular cartilage	1,459	16,828	659	150
18.02	cancer of connective and other soft tissue	1,144	13,369	579	146
18.03	melanoma	1,610	7,113	308	173
18.04	skin cancer, except melanoma, including lip	25,168	4,740	61	206
18.05	thyroid/endocrine cancer	631	10,923	734	169
18.06	other/ill-defined site cancer	9,224	14,788	213	138
19	SECONDARY CANCERS	2,454	31,965	534	83
19.01	secondary cancer of lymph node	2,774	22,043	447	107
19.02	secondary cancer of respiratory and digestive systems	5,974	24,121	297	95
19.03	secondary cancer of other site	7,728	20,137	258	112
19.04	disseminated cancer	1,683	18,876	601	131
BENIGN NEOPLASM, CARCINOMA IN SITU					
20	BENIGN NEOPLASMS	871	13,827	604	129
20.01	benign neoplasm of digestive system	19,186	7,494	96	178
20.02	benign neoplasm of respiratory system	1,446	16,119	651	154
20.03	benign neoplasm of skin	18,021	3,709	60	215
20.04	benign neoplasm of breast	71,490	3,150	27	225
20.05	benign neoplasm of urinary	995	11,054	524	150
20.06	benign neoplasm of eye	1,131	3,964	241	205
20.07	other benign neoplasms	13,207	7,077	111	181
21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	577	21,625	1,072	119
21.01	carcinoma in situ of digestive organs	1,746	16,989	516	127
21.02	carcinoma in situ of respiratory system	1,049	19,571	658	109
21.03	carcinoma in situ of other sites, excluding skin	4,932	10,119	217	150
21.04	neoplasm of uncertain behavior, specified sites	6,851	12,209	217	147
21.05	neoplasm of uncertain behavior nec/nos	12,545	6,278	116	207
21.06	unspecified neoplasm	23,360	10,702	111	159

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES					
22	DIABETES WITHOUT COMPLICATIONS	454	28,619	1,594	119
22.01	diabetes without complications	91,607	6,857	47	207
23	DIABETES WITH ACUTE COMPLICATIONS	359	17,785	977	104
23.01	diabetes with acute complications	3,258	13,214	349	151
24	DIABETES WITH CHRONIC COMPLICATIONS	2,239	21,824	492	107
24.01	diabetes with renal manifestation	1,779	18,105	577	134
24.02	diabetes with other specified complications	11,385	12,897	186	154
24.03	diabetes with unspecified complications	16,976	12,557	148	154
25	HYPOGLYCEMIA	534	23,086	1,194	120
25.01	hypoglycemic coma	706	16,551	825	132
25.02	other hypoglycemia	4,323	12,276	291	156
26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	4,536	21,135	303	97
26.01	disorders of fluid/electrolyte/acid-base balance	54,428	16,428	93	132
27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	853	19,911	650	95
27.01	goiter	4,114	5,699	185	209
27.02	thyrotoxicosis, including Graves' disease	5,890	5,636	144	197
27.03	thyroid disorders	39,609	5,514	58	209
27.04	adrenal gland disorders, e.g., Cushing's syndrome	1,640	16,269	648	161
27.05	ovarian dysfunction	1,752	2,937	165	236
27.06	testicular dysfunction	485	5,898	542	202
27.07	other endocrine disorders	2,984	5,361	203	206
27.08	pituitary/parathyroid/thymus/polyglandular disorders	2,647	11,276	373	170
27.09	protein-calorie malnutrition	7,511	28,421	389	119
27.10	vitamin/other nutritional deficiencies (e.g., PKU, rickets, scurvey)	5,622	8,391	210	188
27.11	disorders of lipoid metabolism (high cholesterol)	95,053	3,610	28	235
27.12	disorders of plasma protein metabolism	1,797	15,238	514	143
27.13	disorders of mineral metabolism	4,110	12,681	341	173
27.14	cystic fibrosis, porphyria, metabolism disorders, nec/nos	1,852	7,935	350	190
27.15	other hyperalimentation	448	8,155	778	202
27.16	obesity/localized adiposity	8,022	7,512	150	178
GASTROINTESTINAL DISORDERS					
28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	918	18,716	658	107
28.01	acute pancreatitis	2,779	16,279	439	142
28.02	chronic pancreatitis/other pancreatic diseases/intestinal malabsorption	2,942	15,369	439	155
29	END STAGE LIVER DISORDERS	274	32,368	2,009	103
29.01	end stage liver disorders	1,235	24,697	964	137
29.02	esophageal varices	559	20,078	1,251	147
30	OTHER LIVER DISORDERS	490	26,667	1,480	123
30.01	cirrhosis	2,668	14,476	441	157
30.02	other liver disorders (e.g., toxic hepatitis)	7,737	11,956	245	180
31	DISEASES OF ESOPHAGUS	1,190	15,912	531	115
31.01	disease of esophagus	28,669	8,021	88	185
32	ULCERS	2,456	17,340	412	118
32.01	ulcer without perforation	21,469	9,660	120	182
32.02	ulcer with perforation	1,009	17,668	824	148
33	GASTRITIS/OTHER GASTRIC DISORDERS	2,454	18,149	436	119
33.01	pyloric/duodenal obstruction	822	18,863	804	122
33.02	gastritis/other gastric disorder (stomach disorders)	89,484	8,926	55	184
34	APPENDICITIS	263	13,832	841	99
34.01	appendicitis	862	15,764	756	141
35	ABDOMINAL HERNIA/ COMPLICATED	413	16,884	758	91
35.01	abdominal hernia, complicated	1,690	12,312	428	143

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
GASTROINTESTINAL DISORDERS	(continued)				
36	ABDOMINAL HERNIA/ UNCOMPLICATED	1,473	11,053	394	137
36.01	abdominal hernia/uncomplicated	30,310	7,547	74	172
37	INFLAMMATORY BOWEL DISEASE	216	20,352	1,987	143
37.01	regional enteritis (Crohn's disease)	1,451	10,089	498	188
37.02	ulcerative colitis	1,570	9,127	426	185
38	PERITONITIS/INTESTINAL OBSTRUCTION	2,846	20,748	423	109
38.01	intestinal obstruction	13,724	19,016	220	135
38.02	peritonitis	1,252	34,754	1,235	126
38.03	other peritoneal disorders	1,643	19,315	561	118
39	DIVERTICULA OF INTESTINE	2,395	15,307	354	113
39.01	diverculа of intestine	34,958	6,895	68	185
40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	2,059	17,258	490	129
40.01	hemorrhoids	17,830	5,060	80	211
40.02	anal/rectal disorders	21,175	7,141	97	198
40.03	intestinal abcess/ulceration/perforation	3,598	17,101	445	156
40.04	other intestinal disorders	28,027	9,149	98	179
41	GALLBLADDER DISORDERS	3,876	15,085	257	106
41.01	cholelithiasis (gallstones)	8,814	11,933	193	152
41.02	biliary tract disease	1,984	20,264	619	136
41.03	other gallbladder disorders	11,025	12,949	183	149
42	GASTROINTESTINAL HEMORRHAGE	1,779	19,583	491	106
42.01	gastrointestinal hemorrhage	25,990	12,556	134	172
DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE					
43	GOUT/ARTHROPATHY/DERANGEMENTS	642	19,548	714	93
43.01	gout/crystal arthropathy	12,755	6,047	103	193
43.02	other arthropathy/joint disorders, derangements	109,190	6,573	38	190
44	CONNECTIVE TISSUE DISEASES	578	21,162	823	94
44.01	systemic lupus erythematosus, scleroderma, arteritis, and other connective tissue disease	5,277	8,048	226	204
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	14,329	6,584	111	202
44.03	inflammatory spondylopathies	1,999	6,748	293	194
44.04	polymyalgia rheumatica	3,914	6,396	210	206
45	ARTHROPATHY/BONE INFECTION	472	30,087	1,382	100
45.01	arthropathy with infection	1,240	14,454	619	151
45.02	osteomyelitis	3,618	17,102	414	146
46	OSTEOARTHRITIS	4,006	18,708	213	72
46.01	osteoarthrosis	115,431	5,440	31	196
47	BACK PAIN	2,737	15,302	259	89
47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	96,367	6,049	38	195
48	DISORDERS OF SOFT TISSUES	650	17,405	927	136
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	103,996	6,279	39	203
49	OTHER BONE DISORDERS	1,754	21,216	477	94
49.01	osteoporosis	19,302	8,828	108	171
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	20,869	8,917	103	166
49.03	flat foot, acquired deformities of toe	14,663	5,202	85	198
49.04	other acquired limb deformities	3,885	11,853	306	161

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1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF BLOOD AND BLOOD-FORMING ORGANS					
50	ANEMIA	1,020	19,874	667	107
50.01	iron deficiency and other anemias	66,030	11,599	71	157
51	OTHER BLOOD DISEASES	875	29,986	1,056	104
51.01	sickle cell and other hereditary hemolytic anemias	982	12,309	805	205
51.02	acquired hemolytic anemia	629	16,474	841	128
51.03	aplastic anemia	2,308	22,198	580	126
51.04	hemophilia and other coagulation defects	6,644	14,134	293	169
51.05	purpura/thrombocytopathy/hemorrhagic conditions	4,582	16,621	407	166
51.06	white blood cell disorders	5,487	17,515	346	146
51.07	immune disorders	732	15,456	1,073	188
51.08	other blood disease	6,529	10,380	214	167
MENTAL DISORDERS					
52	DEMENTIA	1,595	18,709	432	92
52.01	senile/presenile psychoses	19,373	10,363	111	149
52.02	other organic psychotic conditions	3,057	13,478	346	142
52.03	cerebral degeneration/Alzheimer's disease/Reye's syndrome	15,417	11,482	144	156
52.04	senility without psychosis	1,381	8,125	357	163
53	SUBSTANCE-RELATED PSYCHOSES	347	16,654	814	91
53.01	alcoholic psychoses	1,131	13,981	518	125
53.02	drug psychoses	1,077	17,645	623	116
54	DELIRIUM/HALLUCINATIONS	485	19,854	918	102
54.01	delirium/delusions/hallucinations	4,964	18,287	326	126
54.02	hallucinations, symptomatic	772	12,355	534	120
55	SCHIZOPHRENIC DISORDERS	1,668	15,624	342	89
55.01	schizophrenic disorders	8,476	7,173	137	176
56	MANIC AND DEPRESSIVE DISORDERS	2,542	19,341	332	87
56.01	manic and depressive disorders, including major depressive disorder	13,282	10,798	146	156
57	PARANOIA AND OTHER PSYCHOSES	695	16,735	586	92
57.01	paranoid states	868	11,521	537	137
57.02	other nonorganic psychoses	15,284	12,239	139	140
58	NEUROTIC DISORDERS	391	18,667	938	99
58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	28,674	7,401	79	181
59	SUBSTANCE ABUSE AND DEPENDENCE	831	13,511	446	95
59.01	alcohol dependence	3,410	12,760	311	142
59.02	drug dependence	977	15,518	588	118
59.03	non-dependent abuse of drugs	5,830	9,921	190	146
60	OTHER MENTAL DISORDERS	805	17,490	717	116
60.01	personality disorders	2,014	12,555	373	133
60.02	sexual deviations and disorders	1,396	4,456	239	201
60.03	psychophysiologic disorders	925	8,824	440	152
60.04	acute reaction to stress	1,686	6,667	356	219
60.05	adjustment reaction	4,152	12,767	342	172
60.06	nonpsychotic organic brain syndrome	9,019	11,310	179	150
60.07	depression, not elsewhere classified	14,429	9,705	136	168
60.08	behavior disorder	727	8,544	553	175
60.09	developmental behavioral disorders	874	9,791	586	177
60.10	mental retardation	3,739	4,386	174	242
60.11	other mental disorders	2,232	9,749	333	161

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
NEUROLOGICAL DISORDERS					
61	HEADACHES	151	12,287	1,146	115
61.01	headaches, including migraine	26,664	6,997	82	191
62	DEGENERATIVE NEUROLOGIC DISORDERS	522	20,611	840	93
62.01	Parkinson's disease	9,313	8,026	148	178
62.02	Huntington's Disease, essential tremor, other abnormal movement disorders	3,777	8,127	243	184
62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	497	14,410	1,186	183
62.04	other spinal cord disease	1,204	15,624	609	134
62.05	autonomic nerve disorder	1,463	12,743	508	152
62.06	other hereditary and degenerative central nervous system diseases (e.g., Tay-Sachs)	703	11,017	673	162
63	OTHER NEUROLOGIC DISORDERS	480	24,498	1,019	91
63.01	multiple sclerosis, other central nervous system dymelination	1,692	9,036	400	182
63.02	infantile cerebral palsy	1,002	6,110	422	219
63.03	quadriplegia	705	20,250	1,128	148
63.04	paraplegia	654	19,354	658	137
63.05	cauda equina syndrome	3,607	13,617	323	142
63.06	other paralytic disorders	1,375	17,362	622	133
63.07	nervous/musculoskeletal system symptoms	10,723	12,073	171	147
63.08	other central nervous system disorders	1,365	18,124	695	142
64	EPILEPSY AND OTHER SEIZURE DISORDERS	1,368	19,610	560	106
64.01	epilepsy and other seizure disorders/convulsions	16,432	10,702	149	179
65	MONONEUROPATHY	210	17,000	1,035	88
65.01	trigeminal nerve disorder	1,415	5,812	281	182
65.02	facial nerve disorders, including Bell's Palsy	1,639	6,856	289	171
65.03	root/plexus disorders	634	7,583	628	208
65.04	root/plexus lesions	582	7,870	618	189
65.05	other cranial nerve disorders	336	10,438	953	167
65.06	neuropathy of upper limb (e.g., carpal tunnel syndrome)	6,628	6,060	143	192
65.07	neuropathy of leg	6,783	7,383	163	182
66	POLYNEUROPATHY	193	27,266	2,199	112
66.01	peripheral neuropathy	5,776	9,277	207	169
66.02	inflammatory/toxic neuropathy, including Guillain-Barre Syndrome	3,179	13,567	361	150
66.03	myoneural disorders/myasthenia gravis	646	11,149	724	165
66.04	muscular dystrophies	859	14,208	916	189
66.05	other neuropathy	824	9,190	612	191
67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE, OTHER BRAIN CONDITIONS	182	26,460	1,929	98
67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	6,177	20,559	376	144
CIRCULATORY DISORDERS					
68	VALVULAR AND RHEUMATIC HEART DISEASE	791	39,750	1,415	100
68.01	rheumatic fever/heart disease	4,000	14,157	363	162
68.02	mitral or aortic valve/endocardia disease	32,667	11,650	103	160
68.03	mitral/aortic valve disorders	6,860	14,827	245	137
69	HYPERTENSION, UNCOMPLICATED	1,449	18,554	542	111
69.01	essential hypertension	241,606	5,121	23	219
69.02	hypertensive heart disease	27,676	7,870	86	181
70	HYPERTENSION, COMPLICATED	872	19,471	796	121
70.01	malignant hypertension	18,041	6,386	98	206
70.02	malignant hypertensive heart disease	3,000	7,965	291	200
70.03	hypertensive heart and renal disease	4,201	17,100	413	157
70.04	secondary hypertension	714	10,013	583	156
70.05	hypertension encephalopathy	1,179	12,569	550	153
71	MYOCARDIAL INFARCTION (SUBSEQUENT EPISODE OF CARE)	3,988	27,839	374	85
71.01	myocardial infarction (heart attack), subsequent episode of care	13,585	17,273	194	131
71.02	old myocardial infarction (heart attack)	11,091	12,879	166	136
71.03	coronary atherosclerosis, aneurysm of heart, other chronic ischemic heart disease	124,426	8,403	43	182

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1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS	(continued)				
72	ACUTE MYOCARDIAL INFARCTION (INITIAL EPISODE OF CARE)	6,450	22,516	278	99
72.01	acute myocardial infarction (heart attack), initial episode of care	9,266	22,149	252	109
73	OTHER ACUTE ISCHEMIA	7,275	19,338	235	104
73.01	other acute ischemia	21,664	15,828	139	129
74	ANGINA PECTORIS	2,128	15,395	376	113
74.01	angina pectoris	44,191	9,806	74	159
75	PULMONARY HEART DISEASE	791	22,880	718	88
75.01	pulmonary embolism (blood clot)	3,438	20,696	439	124
75.02	other pulmonary heart disease	6,277	15,713	292	147
76	RHYTHM AND CONDUCTION DISORDERS	2,998	16,467	283	94
76.01	conduction disorders/cardiac dysrhythmias	60,255	9,644	67	171
76.02	premature heart beats	13,292	9,804	136	160
77	ATRIAL ARRYTHMIA	3,358	14,823	282	110
77.01	atrial arrhythmia	43,505	11,915	93	163
78	VENTRICULAR TACHYCARDIA	517	27,365	1,212	101
78.01	ventric tachycardia	5,332	19,583	355	132
79	HEART ARREST/ SHOCK	291	34,724	2,001	98
79.01	heart arrest/shock	8,336	23,121	360	142
80	HEART FAILURE	11,168	21,290	208	103
80.01	heart failure	75,085	12,569	74	161
81	OTHER CARDIAC DISEASE	693	27,236	963	93
81.01	pericarditis, post-MI	2,586	20,433	530	132
81.02	acute endo/myocarditis	712	22,656	1,145	135
81.03	cardiomyopathy/myocarditis	11,768	14,703	195	144
81.04	cardiomegaly (enlarged heart)	23,604	14,847	138	143
81.05	other heart disease	12,852	12,160	173	161
82	CEREBRAL HEMORRHAGE	1,093	26,880	869	107
82.01	cerebral hemorrhage	4,189	18,861	372	128
83	PRECEREBRAL ARTERIAL OCCLUSION	1,489	17,261	388	87
83.01	precerebral arterial occlusion	17,454	11,076	129	154
84	CEREBROVASCULAR DISEASE (STROKE)	7,526	22,023	249	98
84.01	cerebrovascular accident (stroke)	41,769	12,336	95	157
84.02	hemiplegia (paralysis of one side of body)	7,520	19,579	250	111
84.03	aphasia (loss of language skills/comprehension)	2,358	20,077	433	105
85	TRANSIENT CEREBRAL ISCHEMIA	2,548	12,316	266	109
85.01	transient cerebral ischemia	19,573	9,937	104	147
86	ATHEROSCLEROSIS	892	30,285	808	80
86.01	atherosclerosis of aorta, renal artery, and arteries of the extremities	20,211	11,466	131	162
86.02	atherosclerosis/general, arteriosclerotic cardiovascular disease/arteriosclerosis	41,221	9,311	78	171
87	ANEURYSM	1,030	32,586	1,073	106
87.01	aortic aneurysm	7,025	13,449	263	164
87.02	other aneurysm	1,868	18,480	619	145
88	ARTERIAL EMBOLISM AND THROMBOSIS	982	29,422	803	85
88.01	arterial embolism and thrombosis (blood clots)	6,377	19,200	322	134

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS (continued)					
89	PERIPHERAL VASCULAR DISEASE	1,179	29,863	812	93
89.01	specified peripheral vascular disease	3,082	13,762	406	164
89.02	Raynaud's syndrome	948	7,505	526	216
89.03	peripheral vascular disease	30,616	10,022	97	169
89.04	other arterial disease	6,846	13,983	266	157
89.05	disease of capillaries	918	5,818	429	223
89.06	vascular insufficiency of intestines	1,550	23,079	882	150
89.07	gangrene	3,370	28,232	545	112
90	THROMBOPHLEBITIS	1,663	19,384	470	99
90.01	phlebitis and thrombophlebitis	13,716	13,742	179	153
90.02	noninfectious lymphatic disorders	1,511	10,205	412	157
90.03	hemorrhage nos	1,126	18,424	915	167
90.04	compression of vein	933	14,444	713	151
91	HYPOTENSION (LOW BLOOD PRESSURE)	599	16,719	783	115
91.01	hypotension (low blood pressure)	8,113	16,467	267	146
92	OTHER CIRCULATORY DISEASE	479	18,897	910	105
92.01	superficial phlebitis-leg	1,949	10,011	363	160
92.02	varicose veins	9,265	7,303	138	182
92.03	other circulatory disease/postphlebitic syndrome	5,777	14,065	294	159
92.04	other specified circulatory disorders	8,196	10,163	196	174
DISORDERS OF THE EYE AND ADNEXA					
93	DISORDERS OF THE EYE AND ADNEXA	945	11,118	492	136
93.01	diabetic retinopathy	9,906	7,631	133	174
93.02	proliferative diabetic retinopathy	1,909	9,150	336	161
93.03	endophthalmitis (eye inflammation)	520	8,970	673	171
93.04	retinal disorders	54,643	4,576	41	208
93.05	glaucoma	56,024	4,030	38	223
93.06	cataract/lens replacement	177,409	4,026	21	217
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	22,684	3,437	53	230
93.08	vitreous hemorrhage	1,414	7,085	293	156
93.09	other eye disorders	118,492	4,491	28	218
DISORDERS OF THE EAR AND MASTOID PROCESS					
94	EAR DISORDERS	494	8,630	463	119
94.01	impacted earwax	27,319	4,053	55	224
94.02	otitis media (middle ear infection)	16,385	4,286	75	224
94.03	vertiginous syndromes (e.g., vertigo, Meniere's disease)	11,455	4,569	85	198
94.04	hearing loss	17,444	5,090	81	211
94.05	other ear disorders	20,486	4,508	69	220
DISEASES OF THE RESPIRATORY SYSTEM					
95	NOSE/ THROAT DISEASES	599	16,074	819	125
95.01	acute nose/throat infection (e.g., common cold)	76,452	4,450	37	233
95.02	nasal polyps/allergic rhinitis (e.g., hay fever)	23,138	3,799	55	219
95.03	chronic sinusitis	20,774	4,690	73	223
95.04	larynx/vocal cord diseases	2,141	9,523	466	226
95.05	paralysis of vocal cords/larynx	551	21,675	1,382	150
95.06	disorders of teeth, gum, and jaw (e.g., periodontitis, gingivitis)	5,106	6,443	191	211
95.07	other diseases of upper respiratory system	12,132	5,530	111	221
95.08	salivary gland diseases	1,824	7,112	428	257
95.09	oral soft tissue/tongue/jaw disorders	4,714	6,595	198	206
96	EMPHYSEMA/CHRONIC BRONCHITIS	4,511	20,230	332	110
96.01	emphysema/chronic bronchitis	80,841	9,585	61	180
97	OTHER BRONCHITIS	1,553	15,763	433	108
97.01	other bronchitis	74,211	5,968	46	208

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF THE RESPIRATORY SYSTEM (continued)					
98	VIRAL PNEUMONIA/INFLUENZA	262	15,319	1,813	192
98.01	viral pneumonia	2,564	16,293	477	148
98.02	influenza	8,261	7,096	173	222
99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	2,155	28,506	666	108
99.01	gram-negative/staph pneumonia	3,985	30,787	658	135
100	BACTERIAL PNEUMONIA	9,277	19,236	229	115
100.01	pneumococcal and other specific bacterial pneumonia	4,033	18,730	414	140
100.02	other and unspecified pneumonia	41,993	15,328	119	159
101	ASTHMA	1,575	17,748	570	128
101.01	asthma	23,151	7,848	98	190
102	LUNG DISEASES DUE TO EXTERNAL AGENTS	1,681	32,513	764	96
102.01	bronchiectasis, lung diseases due to specified external agent (e.g., black lung disease)	3,166	10,432	317	171
102.02	aspiration pneumonia	3,790	31,292	622	122
102.03	respiratory conditions due to other and unspecified external agents/postinflammatory fibrosis	7,313	12,952	240	158
103	PLEURISY/PNEUMOTHORAX	731	24,174	836	94
103.01	pleurisy/pneumothorax	18,772	22,763	210	126
104	OTHER LUNG DISEASE	673	30,528	1,422	121
104.01	empyema/abscess of lung	890	23,840	1,178	147
104.02	pulmonary congestion/hypostasis	12,515	17,709	233	147
104.03	acute lung edema not elsewhere specified	3,176	27,583	591	121
104.04	post trauma/surgery pulmonary insufficiency	1,855	42,967	1,164	117
104.05	other lung disease	28,408	17,924	152	143
105	RESPIRATORY FAILURE/ARREST	1,746	37,674	1,101	122
105.01	respiratory failure	24,115	21,035	207	153
105.02	respiratory arrest	4,212	40,009	791	128
DISEASES OF THE GENITOURINARY SYSTEM					
106	RENAL FAILURE	952	28,878	1,234	132
106.01	nephritis, dialysis encounter	2,931	17,830	453	138
106.02	acute renal failure	4,696	33,360	632	130
106.03	chronic renal failure	6,185	20,341	389	151
106.04	renal failure, unspecified	6,208	19,463	372	151
106.05	impaired renal function	1,471	12,887	503	150
107	KIDNEY INFECTION	614	14,476	649	111
107.01	kidney infection	4,272	11,247	253	147
108	RENAL/URETERAL/BLADDER CALCULUS	802	10,899	379	99
108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	7,052	8,893	189	178
109	OTHER RENAL/URETERAL DISEASES	347	17,757	847	89
109.01	urethral stricture	5,866	8,100	183	173
109.02	hydronephrosis/other renal/urethral disorders	16,744	13,640	158	150
110	OTHER URINARY TRACT INFECTIONS	3,755	21,030	347	101
110.01	cystitis, other urinary tract infections	88,343	9,108	55	180
111	OTHER URINARY DISORDERS	587	16,852	799	115
111.01	other urinary disorders	29,781	9,292	90	168
112	PROSTATE/TESTICULAR/PENILE DISORDERS	3,345	10,266	216	122
112.01	hyperplasia of prostate	48,567	5,327	51	213
112.02	other prostatic disorders	15,857	5,347	79	187
112.03	penis/testis/male genital organs disorders	8,631	6,521	137	196

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
OISEASES OF THE GENITOURINARY SYSTEM (continued)					
113	DISEASES OF FEMALE GENITAL ORGANS	684	11,532	564	128
113.01	diseases of female pelvic organs, including pelvic inflammatory disease, endometriosis, ovarian cyst	5,018	8,645	208	171
113.02	vaginal and cervical diseases	16,212	4,457	79	227
113.03	other diseases of female genital organs	10,033	6,702	126	188
113.04	female stress incontinence	3,998	6,084	156	162
113.05	menopausal and postmenopausal disorders	27,600	3,210	46	236
114	GENITAL PROLAPSE	1,111	6,725	180	89
114.01	genital prolapse	7,565	4,257	93	190
PREGNANCY-RELATEO CONOITIONS					
115	PREGNANCY/PERINATAL CONDITIONS	120	7,175	805	123
115.01	pregnancy/birth complications, mother/child	3,896	10,675	322	168
115.02	pregnancy with abortive outcome	174	11,327	1,661	193
115.03	normal pregnancy/delivery	361	7,175	746	197
OISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE					
116	DERMATOLOGICAL DISORDERS	2,383	17,987	395	107
116.01	cellulitis/abscess/other local skin infection	43,600	8,403	76	188
116.02	bullous dermatoses	726	8,353	570	184
117	CHRONIC ULCER OF SKIN	1,132	32,993	790	81
117.01	chronic ulcer of skin	21,094	13,887	149	156
118	OTHER DEMATOLOGICAL DISORDERS	205	17,075	1,052	88
118.01	dermatitis due to internal agent	1,660	11,194	481	175
118.02	psoriasis and similar disorders	4,939	4,896	164	236
118.03	other dermatosis	50,974	3,445	34	224
118.04	diseases of nail (e.g., ingrown toenail)	39,841	6,879	65	189
118.05	other dermatological disorders	89,143	4,710	35	222
CONGENITAL ANOMALIES					
119	CONGENITAL ANOMALIES	167	24,261	1,659	88
119.01	spina bifida, other congenital anomalies of nervous system	1,228	12,643	556	154
119.02	congenital anomalies of eye	2,186	4,845	251	242
119.03	congenital anomalies of cardiac/circulatory systems	6,271	12,741	235	168
119.04	congenital anomalies of musculoskeletal/limb	5,533	8,382	201	179
119.05	congenital anomalies of skin	2,792	5,149	211	216
119.06	Down's syndrome and other chromosomal anomalies	727	3,795	433	308
119.07	other congenital anomalies	6,448	10,211	231	181
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS					
120	GENERAL SYMPTOMS	983	19,244	686	112
120.01	somatic/segmental dysfunction	11,152	3,968	84	223
120.02	dizziness and giddiness	34,231	6,096	64	195
120.03	malaise and fatigue	37,897	8,075	74	177
120.04	other general symptoms	127,236	8,233	44	189
121	COMA/ SYNCOPE	2,235	13,450	345	121
121.01	coma	3,590	21,579	524	145
121.02	syncope (fainting) and collapse	19,876	10,347	106	145
122	FEVER	406	22,211	1,126	102
122.01	fever	14,288	18,289	214	140
123	RESPIRATORY/OTHER CHEST SYMPTOMS	476	16,761	1,050	137
123.01	dyspnea (labored breathing)/other respiratory abnormalities	59,523	12,949	85	160
123.02	hemoptysis (coughing up blood)	2,925	13,564	394	157
123.03	cough	27,475	7,329	84	190
123.04	respiratory/other chest symptoms	31,743	12,014	107	159

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS (continued)					
124	CARDIOVASCULAR SYMPTOMS	3,424	11,668	247	124
124.01	chest pain	107,457	9,511	49	169
124.02	other cardiovascular symptoms	25,614	8,171	95	186
125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	1,087	15,742	519	109
125.01	retention of urine	10,291	15,427	197	129
125.02	incontinence/urethral discharge	9,264	9,638	161	161
125.03	other urinary system symptoms	23,292	7,437	99	202
125.04	abdominal/pelvis symptoms	90,850	9,493	56	178
INJURY AND POISONING					
126	VERTEBRAL INJURY	735	17,696	686	104
126.01	vertebral fracture without spinal cord injury	6,005	11,525	213	143
126.02	vertebral fracture with spinal cord injury	651	14,366	817	145
127	FRACTURES OF SKULL/FACE/NASAL BONE	144	22,502	2,387	127
127.01	fractures of skull/face	1,466	13,464	641	182
127.02	fractures of nasal bone	789	8,390	508	170
128	PELVIC FRACTURE	671	17,307	642	96
128.01	pelvic fracture	2,677	14,284	324	117
129	FEMORAL FRACTURE	5,718	22,846	220	73
129.01	femoral fracture	12,028	16,256	159	108
130	LOWER LIMB FRACTURES	924	13,564	421	94
130.01	fractures of lower limb (e.g., leg ankle, foot)	8,410	7,922	146	169
131	OTHER FRACTURES/DISLOCATION	1,368	15,026	425	104
131.01	shoulder dislocation	912	8,401	482	173
131.02	dislocation of hip	478	21,276	1,051	108
131.03	dislocation of knee, including cartilage/meniscus tear	2,638	5,780	173	154
131.04	other dislocations	17,466	3,853	68	232
131.05	fracture of rib, closed	5,028	9,606	229	169
131.06	hand/wrist/lower arm fracture	8,213	6,756	133	178
131.07	other fractures	9,531	9,450	160	166
132	INTERNAL AND/OR OPEN WOUND	684	20,299	856	110
132.01	foreign body in pharynx/larynx	2,507	15,558	528	170
132.02	injury to heart/lung/intrathoracic organs/blood vessels of thorax	1,125	18,169	873	161
132.03	gastrointestinal/liver/kidney/spleen/pelvis injury	1,091	16,946	795	155
132.04	open wound of eye	893	8,083	485	179
132.05	open wound/injury of lower arm	13,846	5,675	98	204
132.06	open wound of other sites	16,581	9,222	137	191
132.07	traumatic amputation of limb/hand/foot/toe	1,480	24,968	766	118
132.08	crushing injury	604	7,572	537	174
132.09	foreign body in eye/ear/nose	2,376	4,185	195	228
133	SPRAINS	613	10,707	420	97
133.01	sprains	38,616	5,085	51	198
134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	650	15,792	798	129
134.01	concussion	1,262	10,498	461	156
134.02	contusions/superficial injury	53,451	7,513	59	182
134.03	accidental falls	11,004	10,925	144	138
134.04	suicide/self-inflicted injury	272	17,650	1,092	102
134.05	other accidents	7,595	7,918	158	174
135	INTRACRANIAL (HEAD) INJURY	452	26,727	1,284	102
135.01	intracranial (head) injury	5,375	13,276	278	154
136	BURNS/NERVE, SPINAL CORD INJURIES	162	28,977	3,314	146
136.01	third degree burns	277	14,600	1,939	221
136.02	other burns	1,978	8,171	397	216
136.03	nerve injury, including spinal cord injury without vertebral fracture	1,873	11,044	421	165
136.04	early complications of trauma	1,276	21,021	891	151

INJURY AND POISONING (continued)

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
137	POISONING/TOXIC EFFECTS	882	17,811	657	110
137.01	poisoning by prescription or over-the-counter medications	4,660	14,766	306	142
137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	3,091	11,075	338	170
137.03	poisoning by other nonmedicinal substances	1,749	3,642	194	223
137.04	allergy, unspecified	4,972	4,933	140	200
137.05	adverse effects of correctly prescribed and administered drugs in therapeutic use	13,316	11,578	147	146
138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	4,439	27,768	389	93
138.01	malfunction of internal orthopedic device/graft	1,819	18,019	436	103
138.02	infection/inflammation due to internal device/graft, transplant failure/rejection	1,913	30,948	805	114
138.03	other complications of certain specified medical procedures	7,359	22,602	317	120
138.04	other complications of medical and surgical procedures, nec, (e.g., post operative infection)	17,710	23,191	206	118
138.05	misadventure or abnormal reaction/complication of patient during sugery or medical care	1,270	22,014	600	97
FACTORS INFLUENCING HEALTH STATUS/CONTACT WITH HEALTH SERVICES (V-CODE)					
139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	583	29,464	1,085	89
139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	539	22,365	1,596	166
139.02	other organ transplant	895	8,164	630	231
139.03	heart, heart valve replacement by artificial device	2,397	14,876	489	161
139.04	joint replacement	5,949	15,966	218	105
139.05	other organ replacement	416	17,552	1,341	156
139.06	artificial opening status/attention	4,398	25,253	500	131
139.07	postsurgical states, eye	298	13,478	816	105
139.08	other postsurgical states, including dialysis status	21,008	14,947	142	138
139.09	aspirator, respirator, other machine dependence	380	71,286	4,681	128
140	REHABILITATION PROCEDURES	4,340	31,800	349	72
140.01	rehabilitation procedures	10,961	19,601	208	111
141	RADIOTHERAPY	148	31,087	1,762	69
141.01	radiation therapy	4,266	15,246	269	115
142	CHEMOTHERAPY	935	34,281	772	69
142.01	chemotherapy	3,437	20,596	382	109
143	HISTORY OF DISEASE/AFTERCARE/SCREENING	1,218	24,426	701	100
143.01	infectious disease contact/carrier	674	4,686	347	192
143.02	vaccination, medical exam, other preventive	38,764	4,297	50	230
143.03	history of malignant neoplasm	22,850	9,230	98	160
143.04	history of mental disorder/other disease	6,998	10,849	194	150
143.05	history of drug allergy/other health hazard	6,696	7,440	174	191
143.06	family history of disease	4,769	4,167	135	223
143.07	problems of internal organs/external sites	1,244	9,656	518	189
143.08	elective surgery	321	8,360	707	152
143.09	prothesis/other device fitting, adjustment	2,091	12,765	454	163
143.10	other orthopedic aftercare	2,468	13,050	326	124
143.11	aftercare	6,543	13,681	264	156
143.12	donor	343	19,230	1,206	116
143.13	household/family/other psychosocial circumstances	539	9,812	606	143
143.14	care not delivered	1,831	12,374	403	140
143.15	administrative/consultation	3,457	8,148	259	187
143.16	screening for malignant neoplasm	26,841	3,141	47	247
143.17	screening/observation/special exams	267,301	6,820	26	200

* Unweighted.

** Weighted by fraction of year beneficiary was alive and eligible for Medicare.

SOURCE: 1992 (expenditures) and 1992 (diagnoses) Medicare claims.

TABLE H-2

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	442	3.87E+13	8.75E+10	1742.329	0.0001
ERROR	679,745	3.41E+13	50202860		
C TOTAL	680,187	7.28E+13			

ROOT MSE	7,085	R-SQUARE	0.5312
DEP MEAN	3,783	ADJ R-SQ	0.5309
C.V.	187		

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
	Intercept	1	($150)	$28	-5.38	0.0001
1.01	CNS infection	1	1,615	170	9.51	0.0001
2.01	septicemia/shock	1	6,302	82	77.28	0.0001
3.01	HIV/AIDS	1	4,296	334	12.87	0.0001
4.01	bacterial enteritis	1	2,869	191	15.04	0.0001
4.02	viral enteritis	1	17	151	0.11	0.9114
4.03	other intestinal infections	1	282	146	1.94	0.0526
4.04	tuberculosis	1	273	158	1.73	0.0846
4.05	strep throat/scarlet fever	1	-656	207	-3.17	0.0015
4.06	other bacterial infections	1	1,634	218	7.49	0.0001
4.07	bact Inf in other diseases	1	2,770	73	37.86	0.0001
4.08	herpes zoster	1	-67	85	-0.79	0.4293
4.09	herpes simplex	1	317	157	2.02	0.0433
4.10	hepatitis	1	1,492	265	5.63	0.0001
4.11	other viral infections	1	-213	62	-3.43	0.0006
4.12	late syphilis, symptomatic	1	793	400	1.98	0.0475
4.13	dermatophytosis	1	-354	35	-10.03	0.0001
4.14	thrush	1	1,730	194	8.93	0.0001
4.15	mycoses, miscellaneous	1	1,444	131	10.99	0.0001
4.16	other infections	1	480	77	6.20	0.0001
5.01	infection late effects	1	902	277	3.26	0.0011
5.02	cerebrovasc dis late effects	1	773	77	10.05	0.0001
5.03	injury late effects	1	1,414	172	8.23	0.0001
6.01	cancer of mouth/tongue	1	1,940	226	8.60	0.0001
6.02	cancer of pharynx	1	1,357	283	4.80	0.0001
6.03	cancer of larynx	1	1,155	234	4.94	0.0001
6.04	other resp./intrathoracic cancer	1	983	324	3.03	0.0024
7.01	cancer of esophagus	1	3,490	325	10.74	0.0001
7.02	cancer of stomach	1	3,749	241	15.53	0.0001
7.03	cancer of small bowel	1	1,945	274	7.11	0.0001
7.04	cancer of liver	1	1,679	245	6.84	0.0001
7.05	cancer of pancreas	1	3,780	257	14.73	0.0001
7.06	other cancer of digestive organs	1	647	292	2.22	0.0265
8.01	colon cancer	1	1,183	103	11.53	0.0001
9.01	rectal cancer	1	1,014	113	8.98	0.0001
10.01	lung cancer	1	1,735	101	17.24	0.0001
11.01	breast cancer	1	-172	67	-2.58	0.0100
12.01	lymphoma/Karposi's sarcoma	1	1,626	127	12.79	0.0001
12.02	multiple myeloma	1	1,305	219	5.95	0.0001
12.03	lymphoid leukemia	1	519	196	2.65	0.0081

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
12.04	myeloid leukemia	1	6,153	317	19.38	0.0001
12.05	other leukemia	1	2,473	244	10.13	0.0001
13.01	cancer of uterus	1	584	168	3.48	0.0005
13.02	cancer of cervix/female genital	1	803	204	3.94	0.0001
14.01	cancer of placenta/uterine adnexa	1	1,725	210	8.20	0.0001
15.01	prostate cancer	1	736	60	12.24	0.0001
15.02	cancer of testis/male genital	1	1,210	363	3.33	0.0009
16.01	cancer of bladder/urinary organs	1	549	96	5.70	0.0001
17.01	cancer of the eye	1	78	393	0.20	0.8434
17.02	cancer of the brain/nervous system	1	2,279	156	14.64	0.0001
17.03	benign neoplasm brain/nervous	1	1,128	180	6.28	0.0001
18.01	cancer of bone	1	1,267	200	6.33	0.0001
18.02	cancer of connective tissue	1	988	219	4.51	0.0001
18.03	melanoma	1	147	181	0.81	0.4184
18.04	other skin cancer	1	45	50	0.90	0.3669
18.05	thyroid/endocrine cancer	1	225	290	0.77	0.4389
18.06	other/ill-defined site cancer	1	896	84	10.61	0.0001
19.01	secondary cancer of lymph node	1	4,337	150	28.89	0.0001
19.02	secondary cancer of respiratory	1	4,645	122	38.14	0.0001
19.03	secondary cancer of other site	1	3,957	100	39.71	0.0001
19.04	disseminated cancer	1	1,896	191	9.95	0.0001
20.01	benign neoplasm of digestive system	1	-37	56	-0.66	0.5119
20.02	benign neoplasm of resp system	1	218	196	1.11	0.2655
20.03	benign neoplasm of skin	1	-83	55	-1.50	0.1333
20.04	benign neoplasm of breast	1	-338	32	-10.72	0.0001
20.05	benign neoplasm of urinary	1	359	232	1.55	0.1221
20.06	benign neoplasm of eye	1	45	212	0.21	0.8330
20.07	other benign neoplasms	1	271	64	4.23	0.0001
21.01	cancer in situ of digestive organs	1	1,577	183	8.61	0.0001
21.02	cancer in situ of resp system	1	489	244	2.00	0.0452
21.03	cancer in situ of other sites	1	1,076	107	10.10	0.0001
21.04	neoplasm of uncertain behavior	1	982	90	10.85	0.0001
21.05	neoplasm of uncertain behavior	1	235	67	3.53	0.0004
21.06	unspecified neoplasm	1	533	51	10.37	0.0001
22.01	diabetes without comp.	1	66	29	2.26	0.0236
23.01	diabetes w/acute comp.	1	647	131	4.96	0.0001
24.01	diabetes with renal manifestation	1	907	184	4.93	0.0001
24.02	diabetes w/other specified compl.	1	1,065	77	13.89	0.0001
24.03	diabetes w/unspecified complic.	1	1,463	61	23.79	0.0001
25.01	hypoglycemic coma	1	1,558	282	5.52	0.0001
25.02	other hypoglycemia	1	508	115	4.43	0.0001
26.01	disorders of fluid/electrolyte	1	2,309	38	60.68	0.0001
27.01	goiter	1	239	113	2.11	0.0347
27.02	thyrotoxicosis	1	-98	95	-1.03	0.3023
27.03	thyroid disorders	1	-163	38	-4.24	0.0001
27.04	adrenal gland disorders	1	1,053	185	5.70	0.0001
27.05	ovarian dysfunction	1	-62	171	-0.36	0.7165
27.06	testicular dysfunction	1	75	325	0.23	0.8183
27.07	other endocrine disorders	1	-914	132	-6.93	0.0001
27.08	misc. endocrine disorders	1	750	142	5.27	0.0001
27.09	protein-calorie malnutrition	1	5,750	95	60.50	0.0001
27.10	vitamin/other nutritional deficiency	1	-145	97	-1.50	0.1332
27.11	disorders of lipoid metabolism	1	-309	26	-11.85	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
27.12	disorders of plasma protein met.	1	448	176	2.54	0.0110
27.13	disorders of mineral metabolism	1	1,110	115	9.63	0.0001
27.14	metabolism disorders nec/nos	1	-61	167	-0.37	0.7145
27.15	other hyperalimentation	1	586	338	1.73	0.0829
27.16	obesity/localized adiposity	1	862	81	10.64	0.0001
28.01	acute pancreatitis	1	1,435	145	9.87	0.0001
28.02	chronic pancreatitis/other pancr.	1	1,213	140	8.67	0.0001
29.01	end stage liver disorders	1	4,561	238	19.20	0.0001
29.02	esophageal varices	1	3,642	329	11.08	0.0001
30.01	cirrhosis	1	921	156	5.91	0.0001
30.02	other liver disorders	1	-60	87	-0.69	0.4893
31.01	disease of esophagus	1	55	46	1.18	0.2382
32.01	ulcer w/o perforation	1	358	53	6.82	0.0001
32.02	ulcer with perforation	1	2,844	234	12.17	0.0001
33.01	pyloric/duodenal obstruction	1	2,390	261	9.16	0.0001
33.02	gastritis/oth gastric disorder	1	149	29	5.08	0.0001
34.01	appendicitis	1	1,555	249	6.25	0.0001
35.01	abdominal hernia/complicated	1	930	178	5.22	0.0001
36.01	abdominal hernia/uncomplicated	1	28	45	0.64	0.5254
37.01	regional enteritis	1	890	191	4.66	0.0001
37.02	idiopathic proctocolitis	1	33	183	0.18	0.8567
38.01	intestinal obstruction	1	2,484	68	36.34	0.0001
38.02	peritonitis	1	7,183	223	32.22	0.0001
38.03	other peritoneal disorders	1	3,043	182	16.70	0.0001
39.01	divercula of intestine	1	-160	43	-3.75	0.0002
40.01	hemorrhoids	1	-78	56	-1.39	0.1632
40.02	anal/rectal disorders	1	41	53	0.76	0.4455
40.03	intestinal abcess, ulceration,	1	1,941	126	15.40	0.0001
40.04	other intestinal disorders	1	38	46	0.83	0.4092
41.01	cholelithiasis	1	336	88	3.82	0.0001
41.02	biliary tract disease	1	2,984	175	17.01	0.0001
41.03	other gallbladder disorders	1	1,207	81	14.94	0.0001
42.01	gastrointestinal hemorrage	1	1,103	50	22.00	0.0001
43.01	gout/crystal arthropathy	1	-308	65	-4.78	0.0001
43.02	other arthropathy/joint disorders	1	90	26	3.42	0.0006
44.01	connective tissue disease	1	8	101	0.08	0.9353
44.02	rheumatoid arthritis	1	259	61	4.22	0.0001
44.03	inflammatory spondylopathies	1	237	160	1.48	0.1398
44.04	polymyalgia rheumatica	1	-94	116	-0.81	0.4191
45.01	arthropathy w/infection	1	1,528	206	7.42	0.0001
45.02	osteomyelitis	1	2,272	124	18.27	0.0001
46.01	osteoarthrosis	1	16	25	0.64	0.5211
47.01	back disorders	1	-45	28	-1.58	0.1133
48.01	disorders of soft tissue	1	58	27	2.17	0.0301
49.01	osteoporosis	1	460	56	8.22	0.0001
49.02	other bone disorders	1	364	52	7.00	0.0001
49.03	foot disorders	1	-56	62	-0.90	0.3664
49.04	oth acquired limb deformities	1	1,335	118	11.35	0.0001
50.01	anemia	1	1,031	33	31.47	0.0001
51.01	hereditary hemolytic anemias	1	1,316	232	5.68	0.0001
51.02	acquired hemolytic anemia	1	770	294	2.62	0.0089
51.03	aplastic anemia	1	3,492	163	21.39	0.0001
51.04	coagulation defects	1	603	92	6.56	0.0001
51.05	purpura/ throbocytopathy	1	2,366	113	20.99	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
51.06	white blood cell disorders	1	1,444	103	13.96	0.0001
51.07	immune disorders	1	2,607	269	9.68	0.0001
51.08	other blood disease	1	-226	91	-2.48	0.0131
52.01	senile/presenile psychoses	1	-78	60	-1.29	0.1970
52.02	other organic psychoses cond.	1	1,107	135	8.18	0.0001
52.03	cerebral degeneration/Alzheimer's	1	311	64	4.85	0.0001
52.04	senility without psychosis	1	-399	198	-2.02	0.0436
53.01	alcoholic psychoses	1	514	229	2.25	0.0248
53.02	drug psychoses	1	1,873	225	8.31	0.0001
54.01	transient organic mental disorders	1	2,176	109	20.00	0.0001
54.02	hallucinations	1	709	262	2.71	0.0067
55.01	schizophrenic disorders	1	2,256	82	27.51	0.0001
56.01	manic and depressive disorders	1	2,242	67	33.29	0.0001
57.01	paranoid states	1	1,531	246	6.22	0.0001
57.02	other nonorganic psychoses	1	435	65	6.67	0.0001
58.01	neurotic disorders	1	90	45	1.97	0.0486
59.01	alcohol dependence	1	1,553	137	11.36	0.0001
59.02	drug dependence	1	3,363	238	14.15	0.0001
59.03	non-dependent abuse of drugs	1	922	99	9.36	0.0001
60.01	personality disorders	1	2,752	165	16.68	0.0001
60.02	sexual disorders	1	-224	192	-1.16	0.2456
60.03	psychophysiologic disorders	1	-172	236	-0.73	0.4654
60.04	acute reaction to stress	1	-289	174	-1.66	0.0973
60.05	adjustment reaction	1	2,206	114	19.39	0.0001
60.06	nonpsychotic brain syndrome	1	-117	81	-1.44	0.1493
60.07	other depression	1	574	64	9.00	0.0001
60.08	behavior disorder	1	1,082	270	4.00	0.0001
60.09	developmental/behavioral disord.	1	892	244	3.66	0.0003
60.10	mental retardation	1	-439	123	-3.58	0.0003
60.11	other mental disorders	1	159	154	1.03	0.3027
61.01	headaches	1	42	46	0.91	0.3637
62.01	parkinson's disease	1	166	77	2.15	0.0313
62.02	extrapyramidal disease	1	422	118	3.57	0.0004
62.03	anterior horn cell disease	1	1,289	330	3.91	0.0001
62.04	other spinal cord disease	1	2,892	213	13.55	0.0001
62.05	autonomic nerve disorder	1	1,448	189	7.67	0.0001
62.06	other CNS diseases	1	110	272	0.41	0.6858
63.01	MS, other CNS dymelination	1	945	177	5.34	0.0001
63.02	infantile cerebral palsy	1	205	229	0.89	0.3711
63.03	quadriplegia	1	3,931	282	13.96	0.0001
63.04	paraplegia	1	3,478	243	14.33	0.0001
63.05	cauda equina syndrome	1	1,135	124	9.13	0.0001
63.06	other paralytic disorders	1	1,873	200	9.36	0.0001
63.07	nervous/musculoskeletal system	1	857	72	11.87	0.0001
63.08	other central nervous system dis.	1	1,263	200	6.30	0.0001
64.01	seizure disorders	1	730	60	12.17	0.0001
65.01	trigeminal nerve disorder	1	136	191	0.71	0.4753
65.02	facial nerve disorders	1	-51	177	-0.29	0.7754
65.03	root/plexus disorders	1	186	284	0.66	0.5115
65.04	root/plexus lesions	1	819	297	2.76	0.0058
65.05	other cranial nerve disorders	1	457	392	1.17	0.2427
65.06	neuropathy of upper limb	1	188	89	2.12	0.0339
65.07	neuropathy of leg	1	-82	89	-0.93	0.3548
66.01	peripheral neuropathy	1	26	97	0.27	0.7862

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
66.02	inflammatory/toxic neuropathy	1	1,497	133	11.25	0.0001
66.03	myoneural disorders	1	758	285	2.66	0.0079
66.04	muscular dystrophies	1	2,274	250	9.10	0.0001
66.05	other neuropathy	1	153	251	0.61	0.5419
67.01	other brain disorders	1	2,815	100	28.23	0.0001
68.01	rheumatic fever/heart disease	1	462	119	3.89	0.0001
68.02	mitral or aortic valve disease	1	649	45	14.43	0.0001
68.03	mitral/aortic valve disorders	1	1,286	92	13.98	0.0001
69.01	essential hypertension	1	93	19	4.77	0.0001
69.02	hypertensive heart disease	1	91	45	2.01	0.0444
70.01	malignant hypertension	1	45	54	0.82	0.4120
70.02	malignant hypertensive heart dis.	1	299	132	2.27	0.0230
70.03	hypertensive heart and renal dis.	1	709	121	5.86	0.0001
70.04	secondary hypertension	1	359	269	1.34	0.1817
70.05	hypertension encephalopathy	1	888	211	4.20	0.0001
71.01	myocardial infarction	1	1,445	76	18.91	0.0001
71.02	old myocardial infarction	1	731	72	10.11	0.0001
71.03	other chronic ischemic heart dis.	1	116	26	4.42	0.0001
72.01	acute myocardial infarction	1	4,551	96	47.55	0.0001
73.01	other acute ischemia	1	3,507	56	62.18	0.0001
74.01	angina pectoris	1	461	40	11.67	0.0001
75.01	pulmonary embolism	1	1,970	130	15.19	0.0001
75.02	other pulmonary heart disease	1	1,908	95	20.10	0.0001
76.01	conduction dis./cardiac dysrhyth.	1	320	34	9.47	0.0001
76.02	premature heart beats	1	155	65	2.39	0.0167
77.01	atrial arrythmia	1	1,066	40	26.96	0.0001
78.01	ventric tachycardia	1	2,741	106	25.83	0.0001
79.01	heart arrest/shock	1	4,470	100	44.74	0.0001
80.01	heart failure	1	653	34	19.30	0.0001
81.01	pericarditis, post-MI	1	2,800	146	19.22	0.0001
81.02	acute endo/myocarditis	1	2,739	276	9.94	0.0001
81.03	cardiomyopathy/myocarditis	1	1,053	72	14.70	0.0001
81.04	cardiomegaly	1	932	51	18.17	0.0001
81.05	other heart disease	1	658	66	9.98	0.0001
82.01	cerebral hemorrhage	1	2,970	121	24.62	0.0001
83.01	precerebral arterial occlusion	1	738	59	12.54	0.0001
84.01	cerebrovascular disease (stroke)	1	930	43	21.41	0.0001
84.02	hemiplegia	1	4,398	97	45.19	0.0001
84.03	aphasia	1	2,513	159	15.80	0.0001
85.01	transient cerebral ischemia	1	101	56	1.80	0.0727
86.01	atherosclerosis of major vessel	1	450	54	8.26	0.0001
86.02	atherosclerosis/general, ascvd	1	214	38	5.61	0.0001
87.01	aortic aneurysm	1	1,316	90	14.59	0.0001
87.02	other aneurysm	1	2,987	172	17.36	0.0001
88.01	arterial embolism and thrombosis	1	2,800	98	28.45	0.0001
89.01	specified peripheral vascular dis.	1	1,269	132	9.59	0.0001
89.02	Raynaud's syndrome	1	321	233	1.37	0.1693
89.03	peripheral vascular disease	1	75	46	1.64	0.1017
89.04	other arterial disease	1	1,345	90	14.87	0.0001
89.05	disease of capillaries	1	245	236	1.04	0.2982
89.06	vascular insufficiency of intestine	1	4,127	194	21.28	0.0001
89.07	gangrene	1	7,140	142	50.40	0.0001
90.01	thrombophlebitis	1	1,382	66	20.99	0.0001
90.02	noninfectious lymphatic disorders	1	401	186	2.15	0.0313

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
90.03	hemorrhage nos	1	3,083	220	14.04	0.0001
90.04	compression of vein	1	843	239	3.54	0.0004
91.01	hypotension	1	1,509	84	17.91	0.0001
92.01	superficial phlebitis-leg	1	172	165	1.04	0.2977
92.02	varicose veins	1	186	77	2.43	0.0151
92.03	other circulatory disease	1	910	98	9.27	0.0001
92.04	oth specified circulatory disorders	1	284	82	3.47	0.0005
93.01	diabetic retinopathy	1	116	79	1.47	0.1415
93.02	proliferative diabetic retinopathy	1	246	174	1.41	0.1582
93.03	endophthalmitis	1	206	314	0.65	0.5133
93.04	retinal disorders	1	-49	33	-1.49	0.1363
93.05	glaucoma	1	64	32	1.99	0.0463
93.06	cataract/lens replacement	1	0	21	-0.01	0.9895
93.07	disorders of refraction and accommodation	1	-122	49	-2.49	0.0127
93.08	vitreous hemorrhage	1	855	195	4.39	0.0001
93.09	other eye disorders	1	16	24	0.65	0.5144
94.01	impacted cerumen	1	-221	45	-4.88	0.0001
94.02	otis media	1	8	58	0.14	0.8857
94.03	vertiginous syndromes	1	-215	69	-3.12	0.0018
94.04	hearing loss	1	43	57	0.75	0.4527
94.05	other ear disorders	1	-19	53	-0.37	0.7152
95.01	acute nose/throat infection	1	-342	29	-11.81	0.0001
95.02	nasal polyps/allergic rhinitis	1	-170	49	-3.44	0.0006
95.03	chronic sinusitis	1	-183	52	-3.51	0.0004
95.04	larynx/vocal cord diseases	1	957	158	6.07	0.0001
95.05	paralysis of vocal cords/larnyx	1	4,117	314	13.09	0.0001
95.06	disorders of teeth and jaw	1	231	101	2.30	0.0217
95.07	other diseases of upper respir.	1	-60	67	-0.90	0.3686
95.08	salivary gland diseases	1	462	168	2.74	0.0061
95.09	oral soft tissue/tongue/jaw dis.	1	-140	105	-1.33	0.1849
96.01	emphysema/chronic bronchitis	1	448	30	14.73	0.0001
97.01	other bronchitis	1	-361	30	-12.07	0.0001
98.01	viral pneumonia	1	946	149	6.37	0.0001
98.02	influenza	1	-268	80	-3.34	0.0008
99.01	gram-neg./staph pneumonia	1	7,281	129	56.30	0.0001
100.01	specific bacterial pneumonia	1	908	122	7.44	0.0001
100.02	other pneumonia	1	1,087	43	25.23	0.0001
101.01	asthma	1	369	50	7.31	0.0001
102.01	bronchiectasis, external agent	1	102	130	0.79	0.4311
102.02	aspiration pneumonia	1	6,086	137	44.51	0.0001
102.03	resp cond (ext agent)	1	305	87	3.50	0.0005
103.01	pleurisy/pneumothorax	1	3,501	61	57.41	0.0001
104.01	empyema/abscess	1	4,382	251	17.48	0.0001
104.02	pulmonary congest/hypostasis	1	1,138	70	16.31	0.0001
104.03	acute lung edema nos	1	2,758	141	19.59	0.0001
104.04	post trauma pulmonary insufficiency	1	12,919	182	71.04	0.0001
104.05	other lung disease	1	2,273	48	47.05	0.0001
105.01	respiratory failure	1	3,509	55	63.60	0.0001
105.02	respiratory arrest	1	12,688	133	95.28	0.0001
106.01	nephritis	1	844	143	5.88	0.0001
106.02	acute renal failure	1	7,066	129	54.79	0.0001
106.03	chronic renal failure	1	1,613	108	15.00	0.0001
106.04	renal failure unspecified	1	405	107	3.80	0.0001
106.05	impaired renal function	1	-494	191	-2.59	0.0097

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN
(ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
107.01	kidney infection	1	-823	113	-7.27	0.0001
108.01	renal/ureteral/bladder calculus	1	398	88	4.52	0.0001
109.01	urethral stricture	1	88	96	0.91	0.3609
109.02	hydronephrosis/other renal/dis.	1	270	61	4.41	0.0001
110.01	other urinary tract infections	1	380	29	13.00	0.0001
111.01	other urinary disorders	1	301	47	6.45	0.0001
112.01	hyperplasia of prostate	1	25	39	0.66	0.5119
112.02	other prostatic disorders	1	-119	61	-1.94	0.0522
112.03	penis/testis/male gen disorders	1	44	80	0.56	0.5792
113.01	diseases of female pelvic organs	1	730	106	6.88	0.0001
113.02	vaginal and cervical diseases	1	-26	59	-0.44	0.6627
113.03	other diseases of female genitals	1	-10	75	-0.14	0.8920
113.04	female stress incontinence	1	207	117	1.77	0.0769
113.05	menopausal and postmenopausal	1	-55	47	-1.19	0.2357
114.01	genital prolapse	1	151	85	1.78	0.0758
115.01	pregnancy/birth complications	1	919	117	7.88	0.0001
115.02	abortion	1	868	548	1.59	0.1130
115.03	normal pregnancy/delivery	1	5	379	0.01	0.9885
116.01	dermatological disorders	1	246	38	6.47	0.0001
116.02	bullous dermatoses	1	344	269	1.28	0.2018
117.01	chronic ulcer of skin	1	1,715	56	30.70	0.0001
118.01	dermatitis due to internal agents	1	1,312	177	7.40	0.0001
118.02	psoriasis and similar disorders	1	-5	102	-0.05	0.9593
118.03	other dermatosis	1	-121	36	-3.38	0.0007
118.04	diseases of nail	1	-128	40	-3.18	0.0015
118.05	other dermatological disorders	1	-207	27	-7.55	0.0001
119.01	congenital anomalies of nervous	1	70	209	0.33	0.7397
119.02	congenital anomalies of eye	1	411	153	2.70	0.0070
119.03	congenital anomalies of cardiac	1	1,189	81	14.63	0.0001
119.04	congenital anomalies of muscul.	1	769	98	7.88	0.0001
119.05	congenital anomalies of skin	1	-95	136	-0.70	0.4851
119.06	chromosomal anomalies	1	-62	268	-0.23	0.8179
119.07	other congenital anomalies	1	330	91	3.63	0.0003
120.01	somatic/segmental dysfunction	1	48	70	0.69	0.4921
120.02	dizziness and giddiness	1	-265	42	-6.34	0.0001
120.03	malaise and fatigue	1	-221	39	-5.61	0.0001
120.04	other general symptom	1	165	24	6.84	0.0001
121.01	coma	1	2,717	132	20.52	0.0001
121.02	syncope and collapse	1	282	54	5.18	0.0001
122.01	fever	1	1,295	66	19.66	0.0001
123.01	dyspnea/other resp abnormalities	1	931	35	26.66	0.0001
123.02	hemoptysis	1	-60	138	-0.44	0.6624
123.03	cough	1	-425	46	-9.31	0.0001
123.04	respiratory/other chest symptoms	1	514	44	11.62	0.0001
124.01	chest pain	1	380	27	14.02	0.0001
124.02	other cardiovascular symptoms	1	31	47	0.66	0.5115
125.01	retention of urine	1	1,813	77	23.65	0.0001
125.02	incontinence/urethral discharge	1	235	78	3.01	0.0026
125.03	other urinary system symptoms	1	-292	49	-5.91	0.0001
125.04	abdominal/pelvis symptoms	1	120	30	3.97	0.0001
126.01	vertebral fracture w/o spinal fract.	1	646	99	6.52	0.0001
126.02	vertebral fracture with spinal fract.	1	1,715	290	5.91	0.0001
127.01	fractures of skull/face	1	1,560	192	8.13	0.0001
127.02	fractures of nasal bone	1	-695	258	-2.70	0.0070

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
128.01	pelvic fracture	1	1,415	145	9.79	0.0001
129.01	femoral fracture	1	3,899	73	53.49	0.0001
130.01	fractures of lower limb	1	288	80	3.59	0.0003
131.01	shoulder dislocation	1	539	239	2.26	0.0241
131.02	dislocation of hip	1	3,526	341	10.34	0.0001
131.03	dislocation of knee	1	797	140	5.71	0.0001
131.04	other dislocations	1	-22	-57	-0.40	0.6909
131.05	fracture of rib, closed	1	-257	104	-2.46	0.0138
131.06	hand/wrist/lower arm fracture	1	226	82	2.75	0.0059
131.07	other fractures	1	470	77	6.10	0.0001
132.01	foreign body in pharnyx/larnyx	1	821	148	5.55	0.0001
132.02	heart/lung/blood vessels injury	1	1,969	222	8.88	0.0001
132.03	gi/liver/kidney/spleen/pelvis	1	1,806	223	8.09	0.0001
132.04	open wound of eye	1	133	241	0.55	0.5816
132.05	open wound/injury of lower arm	1	-482	64	-7.55	0.0001
132.06	open wound of other sites	1	232	59	3.91	0.0001
132.07	amputation of limb/hand/foot/toe	1	4,516	200	22.61	0.0001
132.08	crushing injury	1	-211	292	-0.72	0.4698
132.09	foreign body in eye/ear/nose	1	-80	146	-0.55	0.5841
133.01	sprains	1	-126	39	-3.21	0.0013
134.01	concussion	1	-153	207	-0.74	0.4603
134.02	contusion/superficial injury	1	-167	36	-4.70	0.0001
134.03	accidental falls	1	998	75	13.29	0.0001
134.04	suicide/self-inflicted injury	1	3,485	447	7.80	0.0001
134.05	other accidents	1	306	86	3.54	0.0004
135.01	intracranial injury	1	1,265	105	12.07	0.0001
136.01	third degree burns	1	5,766	447	12.89	0.0001
136.02	other burns	1	688	165	4.16	0.0001
136.03	nerve injury	1	1,053	168	6.28	0.0001
136.04	early complications of trauma	1	3,297	205	16.05	0.0001
137.01	poison effects	1	485	111	4.38	0.0001
137.02	toxic effects, named substance	1	308	131	2.35	0.0186
137.03	toxic effects of other nonmedicinal	1	-367	171	-2.15	0.0316
137.04	allergy, unspecified	1	-213	102	-2.09	0.0371
137.05	adverse effects of drugs	1	306	65	4.70	0.0001
138.01	malfunction of internal orthop. dev.	1	2,375	179	13.28	0.0001
138.02	infection due to int. graft/device	1	5,981	174	34.38	0.0001
138.03	other complications of med. procedures	1	4,246	90	47.18	0.0001
138.04	other compl. of medical care	1	6,013	60	100.32	0.0001
138.05	misadventure to patient in surgery	1	1,953	206	9.47	0.0001
139.01	kidney/heart/lung/liver transplant	1	5,644	317	17.82	0.0001
139.02	other organ transplant	1	934	239	3.90	0.0001
139.03	heart/valve replacement	1	2,057	152	13.50	0.0001
139.04	joint replacement	1	4,642	98	47.21	0.0001
139.05	other organ replacement	1	3,306	353	9.37	0.0001
139.06	artificial opening status/attention	1	4,136	117	35.44	0.0001
139.07	postsurgical states, eye	1	2,368	414	5.72	0.0001
139.08	other postsurgical states	1	2,585	54	48.07	0.0001
139.09	machine dependence	1	32,792	418	78.46	0.0001
140.01	rehabilitation procedures	1	5,348	73	72.77	0.0001
141.01	radiotherapy	1	2,385	119	19.96	0.0001
142.01	chemotherapy	1	2,634	135	19.46	0.0001
143.01	infectious disease contact/carrier	1	-41	275	-0.15	0.8812
143.02	preventive	1	-229	38	-6.10	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
143.03	history of malignant neoplasm	1	89	54	1.65	0.0984
143.04	history of mental dis/oth disease	1	392	87	4.49	0.0001
143.05	history of drug allergy	1	701	88	7.95	0.0001
143.06	family history of disease	1	-266	104	-2.56	0.0105
143.07	problems of int. organs/ext. sites	1	697	204	3.42	0.0006
143.08	elective surgery	1	726	397	1.83	0.0678
143.09	prothesis/other device fitting	1	81	160	0.51	0.6109
143.10	other orthopedic aftercare	1	1,274	148	8.62	0.0001
143.11	aftercare	1	1,788	91	19.59	0.0001
143.12	donor	1	6,361	387	16.44	0.0001
143.13	family/other pyschosocial circum.	1	994	309	3.21	0.0013
143.14	care not delivered	1	1,166	169	6.92	0.0001
143.15	administrative/consultation	1	183	123	1.49	0.1362
143.16	screening for malignant neoplasm	1	-274	46	-5.93	0.0001
143.17	screening/observation/special exam	1	253	21	12.20	0.0001
	AGE/SEX					
	FEMALE, < 65	1	-71	55	-1.30	0.1923
	FEMALE, 70-74	1	-55	33	-1.67	0.0941
	FEMALE, 75-79	1	-114	35	-3.21	0.0013
	FEMALE, 80-84	1	-237	40	-5.94	0.0001
	FEMALE, 85 OR OLDER	1	-514	43	-12.01	0.0001
	MALE, < 65	1	-232	47	-4.98	0.0001
	MALE, 65-69	1	-24	38	-0.62	0.5334
	MALE, 70-74	1	-73	38	-1.91	0.0563
	MALE, 75-79	1	-194	42	-4.59	0.0001
	MALE, 80-84	1	-430	51	-8.43	0.0001
	MALE, 85 OR OLDER	1	-552	62	-8.97	0.0001

SOURCE: 1992 Medicare claims

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
HOSPITAL AND PHYSICIAN DIAGNOSES							
1	**Septicemia/Shock**			None			
2.01	septicemia/shock	20					
2	**Moderate Cost Infectious Diseases**			None			
3.01	HIV/AIDS (including pneumocytosis)	5	(8)				
4.07	bacterial infection in other diseases	8	(12)				
3	**Other Infectious Disease**			None		Out	Out
1.01	central nervous system infection (e.g., meningitis)	1	(2)				
4.02	viral enteritis (intestinal infections)	1					
4.03	other intestinal infections	1					
4.04	tuberculosis	1					
4.05	strep throat/scarlet fever	0					
4.06	other bacterial infections	1					
4.08	herpes zoster (shingles)	0					
4.09	herpes simplex	1					
4.10	viral hepatitis	1					
4.11	other viral infections	1					
4.12	late syphilis, symptomatic	1					
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	1					
4.14	thrush	1					
4.15	mycoses (fungal diseases), miscellaneous	1					
4.16	other infections	1					
5.01	infection late effects	1	(3)				
4	**Metastatic Cancer**			Neoplasm			
19.01	secondary cancer of lymph node	14	(20)				
19.02	secondary cancer of respiratory and digestive systems	20					
19.03	secondary cancer of other site	10	(8)				
19.04	disseminated cancer	3					
5	**High Cost Cancers**			Neoplasm	If in HCC 4 cannot be in HCC 5.		
7.01	cancer of esophagus	2	(5)				
7.02	cancer of stomach	5	(8)				
7.03	cancer of small bowel/peritoneum	3	(5)				
7.04	cancer of liver	5	(12)				
7.05	cancer of pancreas	14	(12)				
10.01	lung cancer	3	(8)				
12.04	myeloid leukemia	10	(12)				
17.02	cancer of the brain/nervous system/pituitary, pineal glands	3	(8)				
6	**Moderate Cost Cancers**			Neoplasm	If in HCC 4 or 5 cannot be in HCC 6.		
6.01	cancer of mouth/tongue	1	(3)				
6.02	cancer of pharynx	3					
6.03	cancer of larynx	1					
6.04	other respiratory/intrathoracic cancer	3					
8.01	colon cancer	1					
9.01	rectal cancer	1	(3)				
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	1	(2)				
12.02	multiple myeloma	3					
12.03	lymphoid leukemia	1					
12.05	other leukemia	3					
14.01	cancer of ovaries/placenta/uterine adnexia	1	(2)				
15.02	cancer of testis/male genital organs	3	(4)				
18.01	cancer of bone and articular cartilage	3					
18.02	cancer of connective and other soft tissue	1	(2)				
7	**Lower Cost Cancers**			Neoplasm	If in HCC 4, 5, or 6, then cannot be in HCC 7.		
7.06	other, unspecified cancer of digestive organs/ peritonium	1					
11.01	breast cancer	1					
13.01	cancer of uterus	1					
13.02	cancer of cervix/female genital organs	1					
15.01	prostate cancer	1	(3)				
16.01	cancer of bladder/kidney/urinary organs	1					
17.01	cancer of the eye	1					
18.03	melanoma	1					
18.05	thyroid/endocrine cancer	1					
18.06	other/ill-defined site cancer	3					
8	**Carcinoma in Situ**			Neoplasm	If in HCC 4-7, then cannot be in HCC 8.	Out	Out
21.01	carcinoma in situ of digestive organs	4	(5)				
21.02	carcinoma in situ of respiratory system	10	(8)				
21.03	carcinoma in situ of other sites	3	(4)				
9	**Uncertain Neoplasm**			Neoplasm	If in HCC 4 - 8, then cannot be in HCC 9.	Out	Out
21.04	neoplasm of uncertain behavior, specified sites	3					
21.05	neoplasm of uncertain behavior nec/nos	1					
21.06	unspecified neoplasm	1					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
10	**Skin Cancer, except Melanoma**			Neoplasm	If in HCC 4 - 9, then cannot be in HCC 10.	Out	Out
18.04	skin cancer, except melanoma, including lip	1					
11	**Benign Neoplasm, Except Breast**			Neoplasm	If in HCC 4 - 10, then cannot be in HCC 11.	Out	Out
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	3	(1)				
20.01	benign neoplasm of digestive system	1					
20.02	benign neoplasm of respiratory system	3					
20.03	benign neoplasm of skin	1					
20.05	benign neoplasm of urinary tract	3	(4)				
20.06	benign neoplasm of eye	1					
20.07	other benign neoplasms	1					
12	**Benign Neoplasm of Breast/Other Breast Disorders**			Neoplasm	If in HCC 4-11, cannot be in HCC 12.	Out	Out
20.04	benign neoplasm of breast/other breast disorders	0					
13	**Diabetes With Complications**			Diabetes			
23.01	diabetes with acute complications	1					
24.01	diabetes with renal manifestation	3	(5)				
24.02	diabetes with other specified complications	1					
24.03	diabetes with unspecified complications	3	(2)				
25.01	hypoglycemic coma	5					
93.02	proliferative diabetic retinopathy	2					
14	**Diabetes Without Complications**			Diabetes	If in HCC 13, then cannot be in HCC 14.	Out	Out
22.01	diabetes without complications	1					
93.01	diabetic retinopathy	1					
15	**Protein-Calorie Malnutrition**			None			
27.09	protein-calorie malnutrition	14	(20)				
16	**Other Higher Cost Endocrine, Metabolic, Nutritional Disorders**			None		Out	
26.01	disorders of fluid/electrolyte/acid-base balance	5					
27.04	adrenal gland disorders, e.g., Cushing's syndrome	3					
27.12	disorders of plasma protein metabolism	3					
17	**Other Lower Cost Endocrine, Metabolic, Nutritional Disorders**			None		Out	
25.02	other hypoglycemia	1					
27.01	goiter	1					
27.02	thyrotoxicosis, including Graves' disease	1					
27.03	thyroid disorders	1					
27.05	ovarian dysfunction	0					
27.06	testicular dysfunction	1					
27.07	other endocrine disorders	0					
27.08	pituitary/parathyroid/thymus/polyglandular disorders	1					
27.10	vitamin/other nutritional deficiencies (e.g., rickets, scurvey)	1					
27.13	disorders of mineral metabolism	1					
27.14	metabolism disorders, nec/nos	1					
27.15	other hyperalimentation	1					
27.16	obesity/localized adiposity	1					
18	**High Cholesterol**			None		Out	Out
27.11	disorders of lipoid metabolism (high cholesterol)	0					
19	**Liver Disease**			Liver			
29.01	end stage liver disorders	14	(12)				
29.02	esophageal varices	6	(12)				
20	**Cirrhosis**			Liver	If in HCC 19, cannot be in HCC 20.		
30.01	cirrhosis	1					
21	**Peritonitis**			Gastrointestinal			
38.02	peritonitis	27					
22	**High Cost Gastrointestinal Disorders**			Gastrointestinal	If in HCC 21 then cannot be in HCC 22.		
4.01	bacterial enteritis (intestinal infections)	5	(8)				
28.01	acute pancreatitis	5	(8)				
33.01	pyloric/duodenal obstruction	8					
38.01	intestinal obstruction	8					
38.03	other peritoneal disorders	8	(12)				
41.02	biliary tract disease	8	(12)				
23	**Moderate Cost Gastrointestinal Disorders**			Gastrointestinal	If in HCC 21 or 22, cannot be in HCC 23.		
32.02	ulcer with perforation	1	(3)				
34.01	appendicitis	3	(5)				
35.01	abdominal hernia, complicated	3					
40.03	intestinal abscess/ulceration/perforation	3					
41.01	cholelithiasis (gallstones)	3	(1)				
41.03	other gallbladder disorders	3	(4)				

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCO*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
24	**Other Gastrointestinal Disorders**			**Gastrointestinal**	If in HCC 21, 22, or 23, then cannot be in HCC 24.	Out	
26.02	chronic pancreatitis/other pancreatic disease/ intestinal malabsorption	1					
30.02	other liver disorders	1					
31.01	disease of esophagus	1					
32.01	ulcer without perforation	1					
33.02	gastritis/other gastric disorder (stomach disorders)	1					
36.01	abdominal hernia/uncomplicated	1					
37.01	regional enteritis (Crohn's disease)	1					
37.02	ulcerative colitis	1					
39.01	diverculа of intestine	1					
40.01	hemorrhoids	1					
40.02	anal/rectal disorders	1					
40.04	other intestinal disorders	1					
42.01	gastrointestinal hemorrhage	1					
25	**Bone and Joint Infections**			None			
45.01	arthropathy with infection	1	(3)				
45.02	osteomyelitis	1	(3)				
26	**Rheumatoid Arthritis and Connective Tissue Disease**			Musculoskeletal			
44.01	systemic lupus erythematosus and other connective tissue disease	1					
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	1					
27	**Other Musculoskeletal and Connective Tissue Disorders**			Musculoskeletal	If in HCC 28 then cannot be in HCC 27.	Out	Out
43.01	gout/crystal arthropathy	0					
43.02	other arthropathy/joint disorders	1					
44.03	inflammatory spondylopathies	1					
44.04	polymyalgia rheumatica	1					
46.01	osteoarthrosis	1					
47.01	back disorders	1					
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	1					
49.01	osteoporosis	1					
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	1					
49.03	flat foot, acquired deformities of toe	1					
49.04	other acquired limb deformities	1	(3)				
119.04	congenital anomalies of musculoskeletal/limb	1	(2)				
28	**Aplastic Anemia**			Hematological			
51.03	aplastic anemia	12	(10)				
29	**Blood/Immune Disorders**			Hematological	If in HCC 28 then cannot be in HCC 29.		
51.01	sickle cell and other hereditary hemolytic anemias	1					
51.02	acquired hemolytic anemia	3					
51.04	hemophilia and other coagulation defects	3					
51.05	purpura/thrombocytopathy/hemorrhagic conditions	1					
51.06	white blood cell disorders	1					
51.07	immune disorders	2	(3)				
30	**Iron Deficiency and Other Anemias**			Hematological	If in HCC 28 or 29 then cannot be in HCC 30.	Out	
50.01	iron deficiency and other anemias	1					
51.08	other blood disease	1					
31	**Dementia**			None		Out	Out
52.01	senile/presenile psychoses	1					
52.02	other organic psychotic conditions	3					
52.03	cerebral degeneration/Alzheimer's disease	1					
52.04	senility without psychosis	1					
32	**Drug/Alcohol Dependence/Psychoses**			Mental Disorders			
53.01	alcoholic psychoses	8					
53.02	drug psychoses	10	(12)				
59.01	alcohol dependence	4					
59.02	drug dependence	10	(12)				
33	**Higher Cost Mental Disorders**			Mental Disorders	If in HCC 32 then cannot be in HCC 33.		
54.01	delirium/delusions/hallucinations	10	(8)				
54.02	hallucinations, symptomatic	4	(5)				
55.01	schizophrenic disorders	3					
56.01	manic and depressive disorders	3					
57.01	paranoid states	4					
57.02	other nonorganic psychoses	1	(3)				
60.01	personality disorders	8					
134.04	suicide/self-inflicted injury	14					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
34	**Lower Cost Mental Disorders**			Mental Disorders	If in HCC 32 or 33, then cannot be in HCC 34.	Out	
58.01	neurotic disorders	1					
59.03	non-dependent abuse of drugs	1					
60.02	sexual disorders	1					
60.03	psychophysiologic disorders	1					
60.04	acute reaction to stress	1					
60.05	adjustment reaction	1					
60.06	nonpsychotic brain syndrome	1					
60.07	other depression	1					
60.08	behavior disorder	1					
60.09	developmental/behavioral disorders	1					
60.10	mental retardation	0					
60.11	other mental disorders	1					
35	**Quadriplegia/Paraplegia**			Nervous System			
63.03	quadriplegia	6	(12)				
63.04	paraplegia	4	(8)				
36	**Higher Cost Neurological Disorders**			Nervous System	If in HCC 35, cannot be in HCC 36.		
62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	3					
62.04	other spinal cord disease	3	(8)				
62.05	autonomic nerve disorder	3	(4)				
63.05	cauda equine syndrome	2	(4)				
63.06	other paralytic disorders	3	(8)				
63.08	other central nervous system disorders	4	(5)				
66.02	inflammatory/toxic neuropathy, including Guillain-Barre syndrome	3					
66.04	muscular dystrophies	1	(2)				
67.01	cerebral cysts, compression, edema, anoxic damage other brain conditions	4	(8)				
95.05	paralysis of vocal cords/larynx	3	(4)				
37	**Other Costlier Neurological Disorders**			Nervous System	If in HCC 35 or 36, then cannot be in HCC 37.		
63.01	multiple sclerosis, other central nervous system dymelination	2					
64.01	epilepsy and other seizure disorders/convulsions	1					
66.03	myoneural disorders/myasthenia gravis	1					
38	**Other Neurological Disorders**			Nervous System	If in HCC 35, 36, or 37, then cannot be in HCC 38.	Out	
62.01	Parkinson's disease	1					
62.02	Huntington's Disease, other abnormal movement disorders	1					
62.06	Other hereditary and degenerative central nervous system diseases	1					
63.02	infantile cerebral palsy	1					
65.01	trigeminal nerve disorder	1					
65.02	facial nerve disorders, including Bell's Palsy	1					
65.03	root/plexus disorders	1					
65.04	root/plexus lesions	1					
65.05	other cranial nerve disorders	1					
65.06	neuropathy of upper limb	1					
65.07	neuropathy of leg	1					
66.01	peripheral neuropathy	1					
66.05	other neuropathy	1					
119.01	spina bifida, other congenital anomalies of nervous system	1					
39	**Respiratory Arrest**			Cardio-Respiratory Arrest		Out	
105.02	respiratory arrest	40					
40	**Heart Arrest/Shock**			Cardio-Respiratory Arrest	If in HCC 39, then cannot be in HCC 40.	Out	
79.01	heart arrest/shock	3	(8)				
41	**Acute Myocardial Infarction (Heart Attack)**			Heart			
72.01	acute myocardial infarction (heart attack)	17					
42	**Other High-Cost Acute Heart Disease**			Heart	If in HCC 41, cannot be in HCC 42.		
73.01	other acute ischemia	7	(8)				
78.01	ventric tachycardia	8					
81.01	pericarditis, post-MI	3	(8)				
81.02	acute endo/myocarditis	1					
43	**Congestive Heart Failure**			Heart	If in HCC 41 or 42, then cannot be in HCC 43.		
75.02	other pulmonary heart disease	3					
80.01	heart failure	1					
81.03	cardiomyopathy/myocarditis	3	(2)				
44	**Atrial Arrhythmia**			Heart	If in 41 or 42 or 43, then cannot be in HCC 44.		
77.01	atrial arrhythmia	1					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
45	**Valvular Heart Disease**			Heart	If in HCC 41 - 44, then cannot be in HCC 45.		
	68.01 rheumatic fever/heart disease	3					
	68.02 mitral or aortic valve/endocardia disease	1					
	68.03 mitral/aortic valve disorders	3	(4)				
46	**Coronary Artery Disease**			Heart	If in HCC 41 - 44, then cannot be in HCC 46.	Out	Out
	71.01 myocardial infarction	1					
	71.02 old myocardial infarction	3	(1)				
	71.03 other chronic ischemic heart disease	1					
	74.01 angina pectoris	1					
47	**Other Heart Disorders**			Heart	If in HCC 41-46, cannot be in HCC 47.	Out	Out
	78.01 conduction disorders/cardiac dysrhythmias	1					
	119.03 congenital anomalies of cardiac/circulatory systems	1					
48	**Hypertensive Heart Disease**			Heart	If in HCC 41-47, cannot be in HCC 48.	Out	Out
	89.02 hypertensive heart disease	1					
	70.02 malignant hypertensive heart disease	1					
	70.03 hypertensive heart and renal disease	1					
	70.05 hypertension encephalopathy	3					
49	**Heart Disease, Miscellaneous**			Heart	If in HCC 41-48, cannot be in HCC 49.	Out	Out
	76.02 premature heart beats	1					
	81.04 cardiomegaly (enlarged heart)	3	(4)				
	81.05 other heart disease	1					
50	**Hypertension (High Blood Pressure)**			Heart	If in HCC 41-49, cannot be in HCC 50.	Out	Out
	69.01 essential hypertension	0					
	70.01 malignant hypertension	0					
	70.04 secondary hypertension	1					
51	**Hemiplegia/Aphasia**			Cerebrovascular			
	84.02 hemiplegia (paralysis of one side of body)	14					
	84.03 aphasia (loss of language skills/comprehension)	14					
52	**Cerebral Hemorrhage**			Cerebrovascular	If in HCC 51, cannot be HCC 52.		
	82.01 cerebral hemorrhage	8	(8)				
53	**Cerebrovascular Disease**			Cerebrovascular	If in HCC 51 or 52, cannot be in HCC 53.		
	5.02 cerebrovascular disease late effects	3					
	83.01 precerebral arterial occlusion	3					
	84.01 cerebrovascular accident (stroke)	1					
	85.01 transient cerebral ischemia	1	(3)				
54	**Gangrene**			Vascular			
	89.07 gangrene	23					
55	**Higher Cost Vascular Disease**			Vascular	If in HCC 54, cannot be in HCC 55.		
	87.01 aortic aneurysm	3					
	87.02 other aneurysm	3	(8)				
	88.01 arterial embolism and thrombosis	5	(8)				
	89.06 vascular insufficiency of intestines	8					
56	**Other Vascular Disease**			Vascular	If in HCC 54 or 55, cannot be in HCC 56.	Out	
	86.01 atherosclerosis of major vessel	1					
	86.02 atherosclerosis/general, ascvd	1					
	89.01 specified peripheral vascular disease	1					
	89.02 Raynaud's syndrome	0					
	89.03 peripheral vascular disease	1					
	89.04 other arterial disease	3					
	89.05 disease of capillaries	1					
	90.01 phlebitis and thrombophlebitis	1	(3)				
	90.02 noninfectious lymphatic disorders	3					
	90.03 hemorrhage nos	1	(8)				
	90.04 compression of vein	1					
	91.01 hypotension (low blood pressure)	3					
	92.01 superficial phlebitis-leg	1					
	92.02 varicose veins	1					
	92.03 other circulatory disease/postphlebitic syndrome	1					
	92.04 other specified circulatory disorders	1					
57	**Severe Acute Lung Conditions**			Lung			
	75.01 pulmonary embolism	8	(12)				
	103.01 pleurisy/pneumothorax	10	(12)				
	104.03 acute lung edema nos	17	(20)				
	104.04 post trauma/surgery pulmonary insufficiency	40					
	105.01 respiratory failure	8	(8)				
58	**High Cost Pneumonia**			Lung			
	99.01 gram-negative/staphylococcus pneumonia	23	(20)				
	102.02 aspiration pneumonia	23	(27)				

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
59	**Moderate Cost Pneumonia**			Lung	If in HCC 58, then cannot be in HCC 59.		
	100.01 pneumococcal and other specific bacterial pneumoni	6	(8)				
	104.01 empyema/abscess	3					
60	**Other and Unspecified Pneumonia**			Lung	If in HCC 58 or 59, cannot be in HCC 60.	Out	
	98.01 viral pneumonia	3					
	100.02 other and unspecified pneumonia	1					
61	**Chronic Lung Disease**			Lung			
	96.01 emphysema/chronic bronchitis	1					
	101.01 asthma	1					
	102.01 bronchiectasis/lung disease due to specified external agents (e.g., black lung disease)	1					
	102.03 respiratory conditions due to other and unspecified external agents/post inflammatory fibrosis	1	(3)				
62	**Other Lung Disease**			Lung	If in HCC 57-61, cannot be in HCC 62.	Out	
	97.01 other bronchitis	1					
	98.02 influenza	1					
	104.02 pulmonary congestion/hypostasis	1	(2)				
	104.05 other lung disease	3					
63	**High Cost Eye Disorders**			Eye, Ear, Nose, and Throat			
	93.03 endophthalmitis (eye inflammation)	1	(3)				
	93.08 vitreous hemorrhage	3					
64	**Other Eye Disorders**			Eye, Ear, Nose, and Throat	If in HCC 63, cannot be in HCC 64.	Out	Out
	93.04 retinal disorders	1					
	93.05 glaucoma	1					
	93.06 cataract/lens replacement	1					
	93.09 other eye disorders	1					
	119.02 congenital anomalies of eye	1					
65	**Ear, Nose, Mouth, and Throat Disorders**			Eye, Ear, Nose, and Throat		Out	Out
	94.03 vertiginous syndromes (e.g., vertigo, Meniere's disease)	1					
	94.04 hearing loss	1					
	94.05 other ear disorders	1					
	95.02 nasal polyps/allergic rhinitis (e.g., hay fever)	1					
	95.03 chronic sinusitis	1					
	95.04 larynx/vocal cord diseases	1					
	95.06 disorders of teeth, gum, and jaw (e.g. periodontitis, gingivitis)	1					
	95.07 other diseases of upper respiratory system	1					
	95.08 salivary gland diseases	1					
	95.09 other oral soft tissue/tongue/jaw disorders	1					
66	**Low Cost Eye, Ear, Nose, and Throat Disorders**			Eye, Ear, Nose, and Throat	If in HCC 63 - 65, cannot be in HCC 66.	Out	Out
	93.07 disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	0					
	94.01 impacted earwax	0					
	94.02 otitis media (middle ear infection)	0					
	95.01 acute nose/throat infection (e.g., common cold)	0					
67	**Acute Renal Failure**			Urinary			
	106.02 acute renal failure	27					
68	**Other Renal Failure**			Urinary	If in HCC 67, then cannot be in HCC 68.		
	106.01 nephritis, dialysis encounter	3					
	106.03 chronic renal failure	3	(5)				
	106.04 renal failure, unspecified	3	(1)				
69	**Other Urinary System Disorders**			Urinary	If in HCC 67 or 68, cannot be in HCC 69.	Out	
	106.05 impaired renal function	1					
	107.01 kidney infection	1					
	108.01 renal/ureteral/bladder calculus	1					
	109.01 urethral stricture	1					
	109.02 hydronephrosis/other renal/urethral disorders	1	(3)				
	110.01 other urinary tract infections	1					
	111.01 other urinary disorders	1					
70	**Genital Disorders**			None		Out	Out
	112.01 hyperplasia of prostate	1					
	112.02 other prostatic disorders	1					
	112.03 penis/testis/male genital organs disorders	1					
	113.01 diseases of female pelvic organs	1	(2)				
	113.02 vaginal and cervical diseases	1					
	113.03 other diseases of female genital organs	1					
	113.04 female stress incontinence	1					
	113.05 menopausal and postmenopausal disorders	0					
	114.01 genital prolapse	1					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
71	**Pregnancy/Perinatal Conditions**			None		Out	
	115.01 pregnancy/birth complications, mother/child	1					
	115.02 pregnancy with abortive outcome	1					
	115.03 normal pregnancy/delivery	1					
72	**Chronic Ulcer of Skin**			Skin			
	117.01 chronic ulcer of skin	1	(2)				
73	**Other Dermatological Disorders**			Skin	If in HCC 72, cannot be HCC 73.	Out	Out
	118.01 cellulitis/abscess/other local skin infection	1					
	118.02 bullous dermatoses	1					
	118.01 dermatitis due to substances taken internally (e.g., food, drugs)	1					
	118.02 psoriasis and similar disorders	1	(0)				
	118.03 other dermatosis	0	(1)				
	118.04 diseases of nail (e.g., ingrown toenail)	1					
	118.05 other dermatological disorders	1					
	119.05 congenital anomalies of skin	1					
74	**Vertebral Fractures**			Injury			
	126.01 vertebral fracture without spinal cord injury	3					
	126.02 vertebral fracture with spinal cord injury	3	(5)				
75	**Hip Fracture/Dislocation**			Injury			
	128.01 pelvic fracture	8	(4)				
	129.01 femoral fracture	8	(12)				
	131.02 dislocation of hip	17					
76	**Higher Cost Injuries and Poisonings**			Injury			
	127.01 fractures of skull/face	3	(2)				
	131.03 dislocation of knee, including cartilage/meniscus tear	2					
	132.02 injury to heart/lung/intrathoracic organs/blood vessels of thorax	3	(4)				
	132.03 gastrointestinal/liver/kidney/spleen/pelvis injury	3	(4)				
	132.07 traumatic amputation of limb/hand/foot/toe	4	(5)				
	135.01 intracranial injury	3	(1)				
	136.01 third degree burns	5					
	136.04 early complications of trauma	1	(3)				
	137.01 accidental poisoning by prescription or over-the-counter medications/biological substances, including medication errors	3					
77	**Lower Cost Injuries and Poisonings**			Injury	If in HCC 74-76, cannot be in HCC 77.	Out	
	5.03 injury late effects	3	(4)				
	127.02 fractures of nasal bone	1					
	130.01 fractures of lower limb	1					
	131.01 shoulder dislocation	1	(2)				
	131.04 other dislocations	1					
	131.05 fracture of rib, closed	1					
	131.06 hand/wrist/lower arm fracture	1					
	131.07 other fractures	1					
	132.01 foreign body in pharynx/larynx	1					
	132.04 open wound of eye	1					
	132.05 open wound/injury of lower arm	1					
	132.06 open wound of other sites	1					
	132.08 crushing injury	1	(0)				
	132.09 foreign body in eye/ear/nose	1					
	133.01 sprains	1					
	134.01 concussion	1	(3)				
	134.02 contusion/superficial injury	1					
	134.03 accidental falls	1					
	134.05 other accidents	1					
	136.02 other burns	1					
	136.03 nerve injury	1					
	137.02 toxic effects, named substance	1					
	137.03 toxic effects of other nonmedicinal substances	0					
	137.04 allergy, unspecified	0					
	137.05 adverse effects of correctly prescribed and administered drugs in therapeutic use	1					
78	**Complications of Medical and Surgical Care**			None		Out	
	136.01 malfunction of internal orthopedic device/graft	4					
	136.02 infection/inflammation due to internal device/graft, transplant failure/rejection	27					
	136.03 other complications of certain specified medical procedures	14					
	136.04 other complications of medical and surgical procedures, nec (e.g., post-operative infection)	14					
	136.05 misadventure or abnormal reaction/complication of patient during surgery or medical care	17					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
79	**Coma**		None			
	121.01 coma	8				
80	**Major Symptoms**		None		Out	Out
	63.07 nervous/musculoskeletal system symptoms	1				
	121.02 syncope (fainting) and collapse	3				
	122.01 fever	3				
	123.01 dyspnea (labored breathing)/other respiratory abnormalities	1				
	123.02 hemoptysis (coughing up blood)	1				
	123.04 respiratory/other chest symptoms	1				
	124.01 chest pain	1				
	125.01 retention of urine	5				
	125.02 incontinence/urethral discharge	1				
	125.04 abdominal/pelvis symptoms	1				
81	**Minor Symptoms, Signs, Findings**		None		Out	Out
	61.01 headaches	1				
	119.06 chromosomal anomalies	0				
	119.07 other congenital anomalies	1				
	120.01 somatic/segmental dysfunction	1				
	120.02 dizziness and giddiness	1				
	120.03 malaise and fatigue	1				
	120.04 other general symptoms	1				
	123.03 cough	1				
	124.02 other cardiovascular symptoms	1				
	125.03 other urinary system symptoms	1				
	143.01 infectious disease contact/carrier	0				
	143.07 problems of internal organs/external sites	2				
	143.13 household/family/other psychosocial circumstances	3				
	143.14 care not delivered	3				
	PROCEDURES, AND FACTORS INFLUENCING CONTACT WITH HEALTH SERVICES					
82	**Heart, Lung, Kidney, Liver Transplant**		Transplant			
	P9 heart, lung, kidney, liver transplant					
83	**Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)**		Transplant	If in HCC 82, then cannot be in in HCC 83.		
	139.01 kidney, heart, heart valve (human/animal tissue), lung, liver transplant	3				
84	**Other Organ Transplant/Replacement**		None		Out	Out
	139.02 other organ transplant	1				
	139.03 heart, heart valve replacement by artificial device	3				
	139.04 joint replacement	8				
	139.05 other organ replacement	3				
85	**Tracheostomy**		Artificial Opening, Tracheostomy			
	P5 tracheostomy					
86	**Gastrostomy**		Artificial Opening			
	P3 gastrostomy					
87	**Enterostomy**		Artificial Opening			
	P4 enterostomy					
88	**Artificial Opening Status/Attention**		Artificial Opening	If in HCC 85-87, then cannot be in HCC 88.		
	139.06 artificial opening status/attention	6				
89	**Machine Dependence**		Tracheostomy	If in HCC 85, then cannot be in HCC 89.		
	139.09 aspirator, respirator, other machine dependence	40				
	P1 intubation/mechanical ventilation					
90	**Post-Surgical States/Aftercare/Rehabilitation Procedures**		None		Out	Out
	139.07 postsurgical states, eye	6				
	139.08 other postsurgical states, including dialysis status	3				
	140.01 rehabilitation procedures	14				
	143.08 elective surgery	3				
	143.09 prosthesis/other device fitting, adjustment	3				
	143.10 other orthopedic aftercare	3				
	143.11 aftercare	1				
	143.12 donor	14				
91	**Chemotherapy**					
	142.01 chemotherapy	4	Chemo-/Radio-Therapy			
	P8 chemotherapy					
92	**Radiation Therapy**		Chemo-/Radio-Therapy	If in HCC 91, then cannot be in in HCC 92.	Out	Out
	141.01 radiation therapy	8				
	P10 radiation oncology					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
93	**Venous Access Port**		None			
P7	venous access port					
94	**Dialysis**		None			
P2	dialysis					
95	**Surgical Amputations**		None			
P6	surgical amputations					
96	**Preventive/Screening/Observation/Special Exams**		None		Out	Out
143.02	vaccination, medical exam, other preventive	0				
143.15	administrative/consultation	1				
143.16	screening for malignant neoplasm	0				
143.17	screening/observation/special exams	1				
97	**History of Disease**		None		Out	Out
143.03	history of malignant neoplasm	1				
143.04	history of mental disorder/other disease	1				
143.05	history of drug allergy/other health hazard	1				
143.06	family history of disease	0				

PRINCIPAL HOSPITAL INPATIENT DIAGNOSTIC GROUPS

98 **Highest Incremental Cost Principal Inpatient Diagnoses**
- 2 Moderate Cost Infectious Diseases
- 4 Metastatic Cancer
- 5 High Cost Cancers
- 19 Liver Disease
- 35 Quadriplegia/Paraplegia
- 41 Acute Myocardial Infarction (Heart Attack)
- 45 Valvular Heart Disease
- 51 Hemiplegia/Aphasia
- 52 Cerebral Hemorrhage
- 55 Higher Cost Vascular Disease
- 72 Chronic Ulcer of Skin

99 **High Incremental Cost Principal Inpatient Diagnoses**
- 6 Moderate Cost Cancers
- 9 Uncertain Neoplasm
- 20 Cirrhosis
- 25 Bone and Joint Infections
- 26 Rheumatoid Arthritis and Connective Tissue Disease
- 27 Other Musculoskeletal and Connective Tissue Disorders
- 29 Blood/Immune Disorders
- 33 Higher Cost Mental Disorders
- 40 Heart Arrest/Shock
- 42 Other High-Cost Acute Heart Disease
- 46 Coronary Artery Disease
- 54 Gangrene
- 57 Severe Acute Lung Conditions
- 75 Hip Fracture/Dislocation

100 **Moderate Incremental Cost Principal Inpatient Diagnoses**
- 3 Other Infectious Disease
- 7 Lower Cost Cancers
- 8 Carcinoma in Situ
- 10 Skin Cancer, except Melanoma
- 11 Benign Neoplasm, Except Breast
- 12 Benign Neoplasm of Breast/Other Breast Disorders
- 13 Diabetes With Complications
- 14 Diabetes Without Complications
- 21 Peritonitis
- 22 High Cost Gastrointestinal Disorders
- 23 Moderate Cost Gastrointestinal Disorders
- 28 Aplastic Anemia
- 31 Dementia
- 32 Drug/Alcohol Dependence/Psychoses
- 36 Higher Cost Neurological Disorders
- 38 Other Neurological Disorders
- 43 Congestive Heart Failure
- 47 Other Heart Disorders
- 53 Cerebrovascular Disease
- 56 Other Vascular Disease
- 58 High Cost Pneumonia
- 61 Chronic Lung Disease
- 68 Other Renal Failure
- 76 Higher Cost Injuries and Poisonings
- 78 Complications of Medical and Surgical Care
- 91 Chemotherapy
- 92 Radiation Therapy

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
101	**Lower Incremental Cost Principal Inpatient Diagnoses**					
1	Septicemia/Shock					
16	Other Higher Cost Endocrine, Metabolic, Nutritional Disorders					
17	Other Lower Cost Endocrine, Metabolic, Nutritional Disorders					
24	Other Gastrointestinal Disorders					
30	Iron Deficiency and Other Anemias					
34	Lower Cost Mental Disorders					
37	Other Costlier Neurological Disorders					
39	Respiratory Arrest					
44	Atrial Arrhythmia					
48	Hypertensive Heart Disease					
50	Hypertension (High Blood Pressure)					
59	Moderate Cost Pneumonia					
60	Other and Unspecified Pneumonia					
62	Other Lung Disease					
63	High Cost Eye Disorders					
64	Other Eye Disorders					
69	Other Urinary System Disorders					
70	Genital Disorders					
73	Other Dermatological Disorders					
74	Vertebral Fractures					
77	Lower Cost Injuries and Poisonings					
79	Coma					
88	Artificial Opening Status/Attention					
102	**Lowest Incremental Cost Principal Inpatient Diagnoses**					
49	Heart Disease, Miscellaneous					
65	Ear, Nose, Mouth, and Throat Disorders					
66	Low Cost Eye, Ear, Nose, and Throat Disorders					
67	Acute Renal Failure					
71	Pregnancy/Perinatal Conditions					
103	**Other Principal Inpatient Diagnoses**				Out	Out
15	Protein-Calorie Malnutrition					
18	High Cholesterol					
80	Major Symptoms					
81	Minor Symptoms, Signs, Findings					
83	Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)					
84	Other Organ Transplant/Replacement					
89	Machine Dependence					
90	Post-Surgical States/Aftercare/Rehabilitation Procedures					
96	Preventive/Screening/Observation/Special Exams					
97	History of Disease					
OTHER RISK FACTORS						
104	**Age/Sex**					
	Female: Younger than 65					
	Female. 65-69					
	Female: 70-74					
	Female: 75-79					
	Female. 80-84					
	Female. 85 or older					
	Male: Younger than 65					
	Male: 65-69					
	Male: 70-74					
	Male: 75-79					
	Male: 80-84					
	Male: 85 or older					

* Numbers in parentheses indicate DCGs assigned excluding symptom, V-code, and complications of medical/surgical care DXGs. These DCGs are shown only where different.

SOURCE: 1992 (Diagnoses) and 1992 (Expenditures) Medicare claims.

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
---	INTERCEPT	-319	29 *	193	26 *	-278	30 *
1	Septicemia/Shock	6,622	80 *	8,087	84 *	7,597	85 *
2	Moderate Cost Infectious Diseases	3,447	71 *	4,939	74 *	3,568	75 *
3	Other Infectious Disease	52	27	--	--	-17	29
4	Metastatic Cancer	5,175	75 *	5,971	77 *	8,109	73 *
5	High Cost Cancers	2,541	83 *	3,174	86 *	3,491	87 *
6	Moderate Cost Cancers	713	60 *	1,352	62 *	1,621	62 *
7	Lower Cost Cancers	212	42 *	741	42 *	855	43 *
8	Carcinoma in Situ	97	173	--	--	154	183
9	Uncertain Neoplasm	194	50 *	--	--	235	53 *
10	Skin Cancer, except Melanoma	-104	61	--	--	73	64
11	Benign Neoplasm, Except Breast	73	44	--	--	125	46 *
12	Benign Neoplasm of Breast/Other Breast Disorders	-336	36 *	--	--	-264	38 *
13	Diabetes With Complications	1,634	46 *	2,068	48 *	1,670	48 *
14	Diabetes Without Complications	106	30 *	--	--	83	31 *
15	Protein-Calorie Malnutrition	5,068	97 *	6,393	101 *	7,052	100 *
16	Other Higher Cost Endocrine, Metabolic, Nutritional Disorders	2,884	37 *	--	--	2,892	39 *
17	Other Lower Cost Endocrine, Metabolic, Nutritional Disorders	202	30 *	--	--	216	31 *
18	High Cholesterol	-312	26 *	--	--	-345	28 *
19	Liver Disease	4,723	194 *	5,603	203 *	5,374	205 *
20	Cirrhosis	669	166 *	1,212	174 *	427	176 *
21	Peritonitis	9,119	221 *	11,586	231 *	12,465	232 *
22	High Cost Gastrointestinal Disorders	3,514	57 *	5,200	58 *	3,840	60 *
23	Moderate Cost Gastrointestinal Disorders	1,444	60 *	2,415	61 *	1,497	63 *
24	Other Gastrointestinal Disorders	203	23 *	--	--	241	24 *
25	Bone and Joint Infections	2,473	109 *	3,459	113 *	2,973	114 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
26	Rheumatoid Arthritis and Connective Tissue Disease	396	55 *	1,008	56 *	462	58 *
27	Other Musculoskeletal and Connective Tissue Disorders	-30	20	--	--	83	21 *
28	Aplastic Anemia	5,654	161 *	6,019	168 *	6,674	169 *
29	Blood/Immune Disorders	2,050	59 *	2,720	62 *	2,575	63 *
30	Iron Deficiency and Other Anemias	1,331	32 *	--	--	1,443	34 *
31	Dementia	254	46 *	--	--	70	49
32	Drug/Alcohol Dependence/Psychoses	3,833	101 *	4,567	105 *	3,883	106 *
33	Higher Cost Mental Disorders	1,936	43 *	2,472	43 *	1,873	45 *
34	Lower Cost Mental Disorders	175	36 *	--	--	126	38 *
35	Quadriplegia/Paraplegia	5,206	188 *	6,552	197 *	6,254	199 *
36	Higher Cost Neurological Disorders	2,455	58 *	3,270	60 *	3,070	61 *
37	Other Costlier Neurological Disorders	761	60 *	1,149	62 *	748	63 *
38	Other Neurological Disorders	331	43 *	--	--	391	45 *
39	Respiratory Arrest	9,639	136 *	--	--	16,639	139 *
40	Heart Arrest/Shock	4,336	105 *	--	--	5,399	110 *
41	Acute Myocardial Infarction (Heart Attack)	9,004	85 *	11,926	86 *	9,645	89 *
42	Other High-Cost Acute Heart Disease	4,756	52 *	6,857	51 *	5,327	55 *
43	Congestive Heart Failure	1,227	35 *	2,340	34 *	1,424	37 *
44	Atrial Arrhythmia	583	54 *	1,348	55 *	842	57 *
45	Valvular Heart Disease	403	60 *	1,155	62 *	588	63 *
46	Coronary Artery Disease	-49	30	--	--	133	32 *
47	Other Heart Disorders	104	55	--	--	232	58 *
48	Hypertensive Heart Disease	33	67	--	--	36	70
49	Heart Disease, Miscellaneous	155	79	--	--	291	84 *
50	Hypertension (High Blood Pressure)	-46	25	--	--	-26	26
51	Hemiplegia/Aphasia	6,414	82 *	7,818	85 *	7,188	86 *
52	Cerebral Hemorrhage	3,130	135 *	3,876	141 *	3,486	142 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
53	Cerebrovascular Disease	911	34 *	1,526	35 *	971	36 *
54	Gangrene	7,061	152 *	7,849	159 *	10,223	144 *
55	Higher Cost Vascular Disease	2,998	64 *	3,931	66 *	3,341	68 *
56	Other Vascular Disease	575	27 *	--	--	662	28 *
57	Severe Acute Lung Conditions	4,344	43 *	5,927	44 *	5,263	45 *
58	High Cost Pneumonia	7,676	99 *	8,144	103 *	9,277	104 *
59	Moderate Cost Pneumonia	2,690	119 *	2,990	124 *	2,645	126 *
60	Other and Unspecified Pneumonia	1,444	43 *	--	--	1,548	46 *
61	Chronic Lung Disease	734	27 *	1,277	28 *	727	29 *
62	Other Lung Disease	262	33 *	--	--	295	35 *
63	High Cost Eye Disorders	511	165 *	1,011	172 *	543	174 *
64	Other Eye Disorders	-120	19 *	--	--	-98	20 *
65	Ear, Nose, Mouth, and Throat Disorders	-195	26 *	--	--	-135	28 *
66	Low Cost Eye, Ear, Nose, and Throat Disorders	-403	39 *	--	--	-410	41 *
67	Acute Renal Failure	6,851	126 *	8,356	131 *	10,172	129 *
68	Other Renal Failure	1,655	78 *	2,444	81 *	1,848	82 *
69	Other Urinary System Disorders	522	26 *	--	--	504	27 *
70	Genital Disorders	-13	25	--	--	26	26
71	Pregnancy/Perinatal Conditions	1,303	111 *	--	--	1,437	117 *
72	Chronic Ulcer of Skin	1,892	55 *	2,442	57 *	1,914	59 *
73	Other Dermatological Disorders	-87	22 *	--	--	-95	23 *
74	Vertebral Fractures	1,193	93 *	1,730	97 *	1,329	98 *
75	Hip Fracture/Dislocation	4,342	66 *	6,785	67 *	5,176	69 *
76	Higher Cost Injuries and Poisonings	2,007	57 *	2,914	59 *	2,553	60 *
77	Lower Cost Injuries and Poisonings	90	24 *	--	--	222	25 *
78	Complications of Medical and Surgical Care	6,670	50 *	--	--	8,454	52 *
79	Coma	2,599	132 *	3,440	139 *	3,363	140 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
80	Major Symptoms	691	22 *	--	--	798	24 *
81	Minor Symptoms, Signs, Findings	173	21 *	--	--	262	22 *
82	Heart, Lung, Kidney, Liver Transplant	120,188	1,946 *	126,486	2,039 *	--	--
83	Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)	3,175	319 *	6,884	333 *	--	--
84	Other Organ Transplant/Replacement	4,507	76 *	--	--	--	--
85	Tracheostomy	59,695	307 *	63,513	315 *	--	--
86	Gastrostomy	5,194	173 *	7,303	180 *	--	--
87	Enterostomy	11,571	332 *	13,345	348 *	--	--
88	Artificial Opening Status/Attention	3,510	130 *	5,284	136 *	--	--
89	Machine Dependence	7,272	77 *	8,775	76 *	--	--
90	Post-Surgical States/Aftercare/ Rehabilitation Procedures	3,833	40 *	--	--	--	--
91	Chemotherapy	3,416	98 *	3,843	103 *	--	--
92	Radiation Therapy	-1,136	135 *	--	--	--	--
93	Venous Access Port	7,008	233 *	8,347	244 *	--	--
94	Dialysis	20,537	345 *	22,274	361 *	--	--
95	Surgical Amputations	12,541	277 *	14,509	290 *	--	--
96	Preventive/Screening/Observation/ Special Exams	322	20 *	--	--	--	--
97	History of Disease	431	40 *	--	--	--	--
98	Highest Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
99	High Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
100	Moderate Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
101	Lower Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
102	Lowest Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
103	Other Principal Inpatient Diagnoses	--	--	--	--	--	--

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
	AGE/SEX						
	FEMALE, < 65	142	54 *	246	56 *	155	57 *
	FEMALE, 70-74	-12	33	68	35	-51	35
	FEMALE, 75-79	-65	35	104	37 *	-123	37 *
	FEMALE, 80-84	-195	40 *	26	41	-335	42 *
	FEMALE, 85 OR OLDER	-580	42 *	-372	43 *	-857	45 *
	MALE, < 65	33	46	-114	47 *	49	48
	MALE, 65-69	102	37 *	72	38	149	39 *
	MALE, 70-74	61	37	98	38 *	110	39 *
	MALE, 75-79	-31	41	93	42 *	-16	43
	MALE, 80-84	-260	50 *	-117	51 *	-393	53 *
	MALE, 85 OR OLDER	-454	61 *	-235	63 *	-780	64 *

* indicates p <= .05 (coefficient is statistically significant)

NOTE: Omitted age/sex category is female, 65-69.

SOURCE: 1992 (Expenditures) and 1992 (Diagnoses) Medicare claims

APPENDIX I:

SPECIALTY CODES CONSIDERED
PHYSICIAN SPECIALTIES

TABLE I-1

1991 SPECIALTY CODES CONSIDERED PHYSICIAN SPECIALTIES

Specialty Code and Description	
01	General Practice
02	General Surgery
03	Allergy/Immunology
04	Otolaryngology
05	Anesthesiology
06	Cardiology
07	Dermatology
08	Family Practice
09	Gynecology (Osteo)
10	Gastroenterology
11	Internal Medicine
12	Osteo. Manipulative Therapy
13	Neurology
14	Neurosurgery
15	Obstetrics (Osteo)
16	Obstetrics/Gynecology
17	Ear, Nose, Throat (Osteo)
18	Ophthalmology
19	Oral Surgery (Dentists only)
20	Orthopedic Surgery
21	Path. Anat., Clinical Pathology (Osteo)
22	Pathology
23	Peripheral Vascular Disease (Osteo)
24	Plastic and Reconstructive Surgery
25	Physical Medicine and Rehabilitation
26	Psychiatry
27	Psychiatry, Neurology (Osteo)
28	Colorectal Surgery
29	Pulmonary Disease
30	Diagnostic Radiology
31	Roentgenology,Radiology (Osteo)
32	Radiation Therapy (Osteo)
33	Thoracic Surgery
34	Urology

Specialty Code and Description	
35	Chiropractic
36	Nuclear Medicine
37	Pediatric Medicine
38	Geriatric Medicine
39	Nephrology
40	Hand Surgery
41	Optometrist
44	Infectious Disease
46	Endocrinology
48	Podiatry
66	Rheumatology
70	Clinic/Other Grp Practice, except GPPP
76	Peripheral Vascular Disease
77	Vascular Surgery
78	Cardiac Surgery
79	Addiction Medicine
81	Critical Care (Intensivists)
82	Ophthalmology-Cataracts Specialty
83	Hematology/Oncology
84	Preventive Medicine
85	Maxillofacial Surgery
86	Neuropsychiatry
90	Medical Oncology
91	Surgical Oncology
92	Radiation Oncology
93	Emergency Medicine
94	Interventional Radiology
96	Unknown Physician Specialty
99	Unknown Supplier/Provider

SOURCE: May 1992 HCFA BPO memo.

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
–	ENTIRE 2.5% MODEL DEVELOPMENT SAMPLE	680,188	$3,783	$13	273
-1	DIAG CODE NOT VALID	10	27,398	6,522	75
-1.0	diag code not valid	5,032	9,711	260	190
0	NO INPATIENT CLAIMS IN DATA	35,521	816	3	226
0.0	no claims in any data	71,102	49	3	1,780
INFECTIOUS AND PARASITIC DISEASES					
1	CENTRAL NERVOUS SYSTEM INFECTION (E.G., MENINGITIS, ENCEPHALITIS)	121	27,797	2,394	95
1.01	central nervous system infection (e.g., meningitis, encephalitis)	1,872	14,862	554	161
2	SEPTICEMIA/SHOCK (BLOOD POISONING)	3,464	28,387	478	99
2.01	septicemia/shock (blood poisoning)	11,212	29,248	345	125
3	HIV/AIDS (INCLUDING PNEUMOCYTOSIS)	47	39,154	6,299	110
3.01	HIV/AIDS (including pneumocytosis)	500	18,714	1,542	184
4	OTHER INFECTIOUS AND PARASITIC DISEASES	1,584	21,503	697	129
4.01	bacterial enteritis (intestinal infections)	1,531	21,832	789	141
4.02	viral enteritis (intestinal infections)	2,290	8,350	317	182
4.03	other intestinal infections	2,488	10,217	385	188
4.04	tuberculosis	2,118	10,476	430	189
4.05	strep throat/scarlet fever	1,189	4,855	292	207
4.06	other bacterial infections	1,104	13,025	696	178
4.07	bacterial infection in other diseases	11,359	18,951	203	114
4.08	herpes zoster (shingles)	7,288	5,515	129	199
4.09	herpes simplex	2,097	7,225	321	204
4.10	viral hepatitis	769	12,961	768	164
4.11	other viral infections	13,770	5,220	100	225
4.12	late syphilis, symptomatic	322	11,721	1,137	174
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	54,540	6,688	56	195
4.14	thrush	1,463	16,548	577	133
4.15	mycoses (fungal diseases), miscellaneous	3,119	13,923	472	189
4.16	other infections	8,919	9,833	204	196
LATE EFFECTS					
5	LATE EFFECTS	289	30,182	1,391	78
5.01	infection late effects	684	11,953	674	148
5.02	cerebrovascular disease late effects	11,550	14,816	181	131
5.03	injury late effects	1,769	13,931	432	130
MALIGNANT NEOPLASM					
6	MOUTH/PHARYNX/LARYNX/OTHER RESPIRATORY CANCER	312	29,466	1,421	85
6.01	cancer of mouth/tongue	1,121	13,201	627	159
6.02	cancer of pharynx	756	16,799	871	143
6.03	cancer of larynx	1,043	12,889	668	167
6.04	other respiratory/intrathoracic cancer	529	15,517	1,039	154
7	STOMACH/SMALL BOWEL/LIVER/PANCREAS/ESOPHAGUS CANCER	969	33,487	1,054	98
7.01	cancer of esophagus	592	22,572	1,254	135
7.02	cancer of stomach	1,065	21,119	794	123
7.03	cancer of small bowel/peritoneum	818	22,008	784	102
7.04	cancer of liver	1,120	22,024	750	114
7.05	cancer of pancreas	1,041	21,665	909	135
7.06	other cancer of digestive organs/peritoneum	656	16,469	800	124
8	COLON CANCER	1,440	24,496	477	74
8.01	colon cancer	7,149	13,001	209	136
9	RECTAL CANCER	570	24,585	643	62
9.01	rectal cancer	5,714	13,318	234	133
10	LUNG CANCER	1,773	29,930	547	77
10.01	lung cancer	7,537	18,023	253	122

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
MALIGNANT NEOPLASM	(continued)				
11	BREAST CANCER	1,394	11,180	283	95
11.01	breast cancer	13,646	5,881	94	187
12	HODGKIN'S DISEASE/LYMPHOMA/MYELOMA/LEUKEMIA	827	35,017	1,043	86
12.01	lymphoma/Karpos's sarcoma/Hodgkin's Disease	3,519	12,796	340	158
12.02	multiple myeloma	1,202	13,907	544	136
12.03	lymphoid leukemia	1,682	11,195	498	182
12.04	myeloid leukemia	623	21,110	1,270	150
12.05	other leukemia	1,206	16,711	747	155
13	CANCER OF UTERUS/CERVIX/FEMALE GENITAL ORGANS	500	16,856	677	90
13.01	cancer of uterus	1,942	8,611	323	165
13.02	cancer of cervix/female genital organs	1,308	9,778	451	167
14	CANCER OF PLACENTA/OVARY/UTERINE ADNEXIA	196	29,452	1,453	69
14.01	cancer of ovaries/placenta/utenne adnexia	1,321	15,364	559	132
15	CANCER OF PROSTATE/TESTIS/MALE GENITAL ORGANS	2,036	14,434	286	89
15.01	prostate cancer	17,347	7,844	100	168
15.02	cancer of testis/male genital organs	406	11,429	797	141
16	CANCER OF BLADDER/KIDNEY/URINARY ORGANS	1,012	20,226	583	92
16.01	cancer of bladder/kidney/urinary organs	6,343	9,949	210	168
17	NEOPLASM OF NERVOUS SYSTEM	336	31,969	1,175	67
17.01	cancer of the eye	335	6,417	645	184
17.02	cancer of the brain/nervous system/pituitary, pineal glands	2,439	16,789	457	135
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	1,679	11,408	405	145
18	OTHER CANCER	440	21,296	982	97
18.01	cancer of bone and articular cartilage	1,459	16,828	659	150
18.02	cancer of connective and other soft tissue	1,144	13,959	579	146
18.03	melanoma	1,610	7,113	308	173
18.04	skin cancer, except melanoma, including lip	25,168	4,740	61	206
18.05	thyroid/endocrine cancer	631	10,923	734	169
18.06	other/ill-defined site cancer	9,224	14,788	213	138
19	SECONDARY CANCERS	2,454	31,965	534	83
19.01	secondary cancer of lymph node	2,774	22,043	447	107
19.02	secondary cancer of respiratory and digestive systems	5,974	24,121	297	95
19.03	secondary cancer of other site	7,728	20,137	258	112
19.04	disseminated cancer	1,683	18,876	601	131
BENIGN NEOPLASM, CARCINOMA IN SITU					
20	BENIGN NEOPLASMS	871	13,827	604	129
20.01	benign neoplasm of digestive system	19,186	7,494	96	178
20.02	benign neoplasm of respiratory system	1,446	16,119	651	154
20.03	benign neoplasm of skin	18,021	3,709	60	215
20.04	benign neoplasm of breast	71,490	3,150	27	225
20.05	benign neoplasm of urinary	995	11,054	524	150
20.06	benign neoplasm of eye	1,131	3,964	241	206
20.07	other benign neoplasms	13,207	7,077	111	181
21	CARCINOMA IN SITU/NEOPLASM OF UNCERTAIN BEHAVIOR	577	21,625	1,072	119
21.01	carcinoma in situ of digestive organs	1,746	16,989	516	127
21.02	carcinoma in situ of respiratory system	1,049	19,571	658	109
21.03	carcinoma in situ of other sites, excluding skin	4,932	10,119	217	150
21.04	neoplasm of uncertain behavior, specified sites	6,851	12,209	217	147
21.05	neoplasm of uncertain behavior neo/nos	12,545	6,278	116	207
21.06	unspecified neoplasm	23,360	10,702	111	159

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
ENDOCRINE, NUTRITIONAL, AND METABOLIC DISEASES					
22	DIABETES WITHOUT COMPLICATIONS	454	28,619	1,594	119
22.01	diabetes without complications	91,607	6,857	47	207
23	DIABETES WITH ACUTE COMPLICATIONS	359	17,785	977	104
23.01	diabetes with acute complications	3,258	13,214	349	151
24	DIABETES WITH CHRONIC COMPLICATIONS	2,239	21,824	492	107
24.01	diabetes with renal manifestation	1,779	18,105	577	134
24.02	diabetes with other specified complications	11,385	12,897	186	154
24.03	diabetes with unspecified complications	16,976	12,557	148	154
25	HYPOGLYCEMIA	534	23,086	1,194	120
25.01	hypoglycemic coma	706	16,551	825	132
25.02	other hypoglycemia	4,323	12,275	291	156
26	DISORDERS OF FLUID/ELECTROLYTE/ACID BASE BALANCE	4,536	21,135	303	97
26.01	disorders of fluid/electrolyte/acid-base balance	54,428	16,428	93	132
27	OTHER ENDOCRINE/NUTRITIONAL/METABOLIC DISEASES	853	19,911	650	95
27.01	goiter	4,114	5,699	185	209
27.02	thyrotoxicosis, including Graves' disease	5,890	5,636	144	197
27.03	thyroid disorders	39,609	5,514	58	209
27.04	adrenal gland disorders, e.g., Cushing's syndrome	1,640	16,269	648	161
27.05	ovarian dysfunction	1,752	2,937	165	236
27.06	testicular dysfunction	485	5,898	542	202
27.07	other endocrine disorders	2,984	5,361	203	206
27.08	pituitary/parathyroid/thymus/polyglandular disorders	2,647	11,276	373	170
27.09	protein-calorie malnutrition	7,511	28,421	389	119
27.10	vitamin/other nutritional deficiencies (e.g., PKU, rickets, scurvey)	5,622	8,391	210	188
27.11	disorders of lipoid metabolism (high cholesterol)	95,053	3,610	28	235
27.12	disorders of plasma protein metabolism	1,797	15,238	514	143
27.13	disorders of mineral metabolism	4,110	12,681	341	173
27.14	cystic fibrosis, porphyria, metabolism disorders, nec/nos	1,852	7,935	350	190
27.15	other hyperalimentation	448	8,155	778	202
27.16	obesity/localized adiposity	8,022	7,512	150	178
GASTROINTESTINAL DISORDERS					
28	PANCREATITIS/ OTHER PANCREATIC DISORDERS	918	18,716	658	107
28.01	acute pancreatitis	2,779	16,279	439	142
28.02	chronic pancreatitis/other pancreatic diseases/intestinal malabsorption	2,942	15,369	439	155
29	END STAGE LIVER DISORDERS	274	32,368	2,009	103
29.01	end stage liver disorders	1,235	24,697	954	137
29.02	esophageal varices	559	20,078	1,251	147
30	OTHER LIVER DISORDERS	490	26,667	1,480	123
30.01	cirrhosis	2,668	14,476	441	157
30.02	other liver disorders (e.g., toxic hepatitis)	7,737	11,956	245	180
31	DISEASES OF ESOPHAGUS	1,190	15,912	531	115
31.01	disease of esophagus	28,669	8,021	88	185
32	ULCERS	2,456	17,340	412	118
32.01	ulcer without perforation	21,469	9,660	120	182
32.02	ulcer with perforation	1,009	17,668	824	148
33	GASTRITIS/OTHER GASTRIC DISORDERS	2,454	18,149	436	119
33.01	pyloric/duodenal obstruction	822	18,863	804	122
33.02	gastritis/other gastric disorder (stomach disorders)	89,484	8,926	55	184
34	APPENDICITIS	263	13,832	841	99
34.01	appendicitis	862	15,764	756	141
35	ABDOMINAL HERNIA/ COMPLICATED	413	16,884	758	91
35.01	abdominal hernia, complicated	1,690	12,312	428	143

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
GASTROINTESTINAL DISORDERS	(continued)				
36	ABDOMINAL HERNIA/ UNCOMPLICATED	1,473	11,053	394	137
36.01	abdominal hernia/uncomplicated	30,310	7,547	74	172
37	INFLAMMATORY BOWEL DISEASE	216	20,352	1,987	143
37.01	regional enteritis (Crohn's disease)	1,451	10,089	498	188
37.02	ulcerative colitis	1,570	9,127	426	185
38	PERITONITIS/INTESTINAL OBSTRUCTION	2,846	20,748	423	109
38.01	intestinal obstruction	13,724	19,016	220	135
38.02	peritonitis	1,252	34,754	1,235	126
38.03	other peritoneal disorders	1,643	19,315	561	118
39	DIVERTICULA OF INTESTINE	2,395	15,307	354	113
39.01	diverticula of intestine	34,958	6,895	68	185
40	ANAL/RECTAL/GASTROINTESTINAL DISORDERS	2,059	17,258	490	129
40.01	hemorrhoids	17,830	5,060	60	211
40.02	anal/rectal disorders	21,175	7,141	97	198
40.03	intestinal abcess/ulceration/perforation	3,598	17,101	445	156
40.04	other intestinal disorders	28,027	9,149	98	179
41	GALLBLADDER DISORDERS	3,876	15,085	257	106
41.01	cholelithiasis (gallstones)	8,814	11,933	193	152
41.02	biliary tract disease	1,984	20,264	619	136
41.03	other gallbladder disorders	11,025	12,949	183	149
42	GASTROINTESTINAL HEMORRHAGE	1,779	19,583	491	106
42.01	gastrointestinal hemorrhage	25,990	12,556	134	172
DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE					
43	GOUT/ARTHROPATHY/DERANGEMENTS	642	19,548	714	93
43.01	gout/crystal arthropathy	12,755	6,047	103	193
43.02	other arthropathy/joint disorders, derangements	109,190	6,573	38	190
44	CONNECTIVE TISSUE DISEASES	578	21,162	823	94
44.01	systemic lupus erythematosus, scleroderma, arteritis, and other connective tissue disease	5,277	8,048	226	204
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	14,329	6,584	111	202
44.03	inflammatory spondylopathies	1,999	6,748	293	194
44.04	polymyalgia rheumatica	3,914	6,396	210	206
45	ARTHROPATHY/BONE INFECTION	472	30,087	1,382	100
45.01	arthropathy with infection	1,240	14,454	619	151
45.02	osteomyelitis	3,618	17,102	414	146
46	OSTEOARTHRITIS	4,006	18,708	213	72
46.01	osteoarthrosis	115,431	5,440	31	196
47	BACK PAIN	2,737	15,302	259	89
47.01	back disorders (e.g., slipped disk, lumbago, sciatica, backache)	96,367	6,049	38	195
48	DISORDERS OF SOFT TISSUES	650	17,405	927	136
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	103,996	6,279	39	203
49	OTHER BONE DISORDERS	1,754	21,216	477	94
49.01	osteoporosis	19,302	8,828	108	171
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	20,869	8,917	103	166
49.03	flat foot, acquired deformities of toe	14,663	5,202	85	198
49.04	other acquired limb deformities	3,885	11,853	305	161

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF BLOOD AND BLOOD-FORMING ORGANS					
50	ANEMIA	1,020	19,874	667	107
50.01	iron deficiency and other anemias	66,030	11,599	71	157
51	OTHER BLOOD DISEASES	875	29,986	1,056	104
51.01	sickle cell and other hereditary hemolytic anemias	982	12,309	805	205
51.02	acquired hemolytic anemia	629	16,474	841	128
51.03	aplastic anemia	2,308	22,198	580	126
51.04	hemophilia and other coagulation defects	6,644	14,134	293	169
51.05	purpura/thrombocytopathy/hemorrhagic conditions	4,582	16,621	407	166
51.06	white blood cell disorders	5,467	17,515	346	146
51.07	immune disorders	732	15,456	1,073	188
51.08	other blood disease	6,529	10,380	214	167
MENTAL DISORDERS					
52	DEMENTIA	1,595	18,709	432	92
52.01	senile/presenile psychoses	19,373	10,363	111	149
52.02	other organic psychotic conditions	3,057	13,478	346	142
52.03	cerebral degeneration/Alzheimer's disease/Reye's syndrome	15,417	11,482	144	156
52.04	senility without psychosis	1,381	8,125	357	163
53	SUBSTANCE-RELATED PSYCHOSES	347	16,654	814	91
53.01	alcoholic psychoses	1,131	13,981	518	125
53.02	drug psychoses	1,077	17,645	623	116
54	DELIRIUM/HALLUCINATIONS	485	19,854	918	102
54.01	delirium/delusions/hallucinations	4,964	18,287	326	126
54.02	hallucinations, symptomatic	772	12,355	534	120
55	SCHIZOPHRENIC DISORDERS	1,668	15,624	342	89
55.01	schizophrenic disorders	8,476	7,173	137	176
56	MANIC AND DEPRESSIVE DISORDERS	2,542	19,341	332	87
56.01	manic and depressive disorders, including major depressive disorder	13,282	10,798	146	156
57	PARANOIA AND OTHER PSYCHOSES	695	16,735	586	92
57.01	paranoid states	868	11,521	537	137
57.02	other nonorganic psychoses	15,284	12,239	139	140
58	NEUROTIC DISORDERS	391	18,667	938	99
58.01	neurotic disorders (e.g. anxiety, panic attack, phobias)	28,674	7,401	79	181
59	SUBSTANCE ABUSE AND DEPENDENCE	831	13,511	446	95
59.01	alcohol dependence	3,410	12,760	311	142
59.02	drug dependence	977	15,518	588	118
59.03	non-dependent abuse of drugs	5,830	9,921	190	146
60	OTHER MENTAL DISORDERS	805	17,490	717	116
60.01	personality disorders	2,014	12,555	373	133
60.02	sexual deviations and disorders	1,396	4,456	239	201
60.03	psychophysiologic disorders	925	8,624	440	152
60.04	acute reaction to stress	1,686	6,667	356	219
60.05	adjustment reaction	4,152	12,767	342	172
60.06	nonpsychotic organic brain syndrome	9,019	11,310	179	150
60.07	depression, not elsewhere classified	14,429	9,705	136	168
60.08	behavior disorder	727	8,544	553	175
60.09	developmental behavioral disorders	874	9,791	586	177
60.10	mental retardation	3,739	4,386	174	242
60.11	other mental disorders	2,232	9,749	333	161

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
NEUROLOGICAL DISORDERS					
61	HEADACHES	151	12,287	1,146	115
61.01	headaches, including migraine	26,664	6,997	82	191
62	DEGENERATIVE NEUROLOGIC DISORDERS	522	20,611	840	93
62.01	Parkinson's disease	9,313	8,026	148	178
62.02	Huntington's Disease, essential tremor, other abnormal movement disorders	3,777	8,127	243	184
62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	497	14,410	1,186	183
62.04	other spinal cord disease	1,204	15,824	639	134
62.05	autonomic nerve disorder	1,463	12,743	508	152
62.06	other hereditary and degenerative central nervous system diseases (e.g., Tay-Sachs)	703	11,017	673	162
63	OTHER NEUROLOGIC DISORDERS	480	24,498	1,019	91
63.01	multiple sclerosis, other central nervous system dymelination	1,692	9,036	400	182
63.02	infantile cerebral palsy	1,002	6,110	422	219
63.03	quadriplegia	705	20,250	1,128	148
63.04	paraplegia	954	19,354	658	137
63.05	cauda equina syndrome	3,607	13,617	323	142
63.06	other paralytic disorders	1,375	17,362	622	133
63.07	nervous/musculoskeletal system symptoms	10,723	12,073	171	147
63.08	other central nervous system disorders	1,365	18,124	695	142
64	EPILEPSY AND OTHER SEIZURE DISORDERS	1,368	19,610	560	106
64.01	epilepsy and other seizure disorders/convulsions	16,432	10,702	149	179
65	MONONEUROPATHY	210	17,000	1,035	88
65.01	trigeminal nerve disorder	1,415	5,812	281	182
65.02	facial nerve disorders, including Bell's Palsy	1,639	6,856	289	171
65.03	root/plexus disorders	634	7,583	628	208
65.04	root/plexus lesions	582	7,870	618	189
65.05	other cranial nerve disorders	336	10,438	953	167
65.06	neuropathy of upper limb (e g , carpal tunnel syndrome)	6,628	6,060	143	192
65.07	neuropathy of leg	6,783	7,383	163	182
66	POLYNEUROPATHY	193	27,266	2,199	112
66.01	peripheral neuropathy	5,776	9,277	207	169
66.02	inflammatory/toxic neuropathy, including Guillain-Barre Syndrome	3,179	13,567	361	150
66.03	myoneural disorders/myasthenia gravis	646	11,149	724	165
66.04	muscular dystrophies	859	14,208	916	189
66.05	other neuropathy	624	9,190	612	191
67	CEREBRAL CYSTS, COMPRESSION, EDEMA, ANOXIC DAMAGE, OTHER BRAIN CONDITIONS	182	26,460	1,929	98
67.01	cerebral cysts, compression, edema, anoxic damage, other brain conditions	6,177	20,559	376	144
CIRCULATORY DISORDERS					
68	VALVULAR AND RHEUMATIC HEART DISEASE	791	39,750	1,415	100
68.01	rheumatic fever/heart disease	4,000	14,157	363	162
68.02	mitral or aortic valve/endocardia disease	32,667	11,650	103	160
68.03	mitral/aortic valve disorders	6,860	14,827	245	137
69	HYPERTENSION, UNCOMPLICATED	1,449	18,554	542	111
69.01	essential hypertension	241,606	5,121	23	219
69.02	hypertensive heart disease	27,676	7,870	86	181
70	HYPERTENSION, COMPLICATED	872	19,471	796	121
70.01	malignant hypertension	18,041	6,386	98	206
70.02	malignant hypertensive heart disease	3,000	7,965	291	200
70.03	hypertensive heart and renal disease	4,201	17,100	413	157
70.04	secondary hypertension	714	10,013	583	156
70.05	hypertension encephalopathy	1,179	12,569	560	153
71	MYOCARDIAL INFARCTION (SUBSEQUENT EPISODE OF CARE)	3,988	27,839	374	85
71.01	myocardial infarction (heart attack), subsequent episode of care	13,585	17,273	194	131
71.02	old myocardial infarction (heart attack)	11,091	12,879	166	136
71.03	coronary atherosclerosis, aneurysm of heart, other chronic ischemic heart disease	124,428	8,403	43	182

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS	(continued)				
72	ACUTE MYOCARDIAL INFARCTION (INITIAL EPISODE OF CARE)	6,450	22,516	278	99
72.01	acute myocardial infarction (heart attack), initial episode of care	9,266	22,149	252	109
73	OTHER ACUTE ISCHEMIA	7,275	19,338	235	104
73.01	other acute ischemia	21,664	15,828	139	129
74	ANGINA PECTORIS	2,128	15,395	376	113
74.01	angina pectoris	44,191	9,806	74	159
75	PULMONARY HEART DISEASE	791	22,880	718	88
75.01	pulmonary embolism (blood clot)	3,438	20,696	439	124
75.02	other pulmonary heart disease	6,277	15,713	292	147
76	RHYTHM AND CONDUCTION DISORDERS	2,998	16,467	283	94
76.01	conduction disorders/cardiac dysrhythmias	60,255	9,644	67	171
76.02	premature heart beats	13,292	9,804	136	160
77	ATRIAL ARRYTHMIA	3,358	14,823	282	110
77.01	atrial arrhythmia	43,505	11,915	93	163
78	VENTRICULAR TACHYCARDIA	517	27,365	1,212	101
78.01	ventric tachycardia	5,332	19,583	355	132
79	HEART ARREST/ SHOCK	291	34,724	2,001	98
79.01	heart arrest/shock	8,336	23,121	360	142
80	HEART FAILURE	11,168	21,290	208	103
80.01	heart failure	75,085	12,569	74	161
81	OTHER CARDIAC DISEASE	693	27,236	963	93
81.01	pericarditis, post-MI	2,586	20,433	530	132
81.02	acute endo/myocarditis	712	22,656	1,145	135
81.03	cardiomyopathy/myocarditis	11,768	14,703	155	144
81.04	cardiomegaly (enlarged heart)	23,604	14,847	138	143
81.05	other heart disease	12,852	12,160	173	161
82	CEREBRAL HEMORRHAGE	1,093	26,860	869	107
82.01	cerebral hemorrhage	4,189	18,861	372	128
83	PRECEREBRAL ARTERIAL OCCLUSION	1,489	17,261	388	87
83.01	precerebral arterial occlusion	17,454	11,076	129	154
84	CEREBROVASCULAR DISEASE (STROKE)	7,526	22,023	249	98
84.01	cerebrovascular accident (stroke)	41,769	12,336	95	157
84.02	hemiplegia (paralysis of one side of body)	7,520	19,579	250	111
84.03	aphasia (loss of language skills/comprehension)	2,358	20,077	433	105
85	TRANSIENT CEREBRAL ISCHEMIA	2,548	12,316	266	109
85.01	transient cerebral ischemia	19,573	9,937	104	147
86	ATHEROSCLEROSIS	892	30,285	808	80
86.01	atherosclerosis of aorta, renal artery, and artenes of the extremities	20,211	11,466	131	162
86.02	atherosclerosis/general, artenosclerotic cardiovascular disease/artenosclerosis	41,221	9,311	78	171
87	ANEURYSM	1,030	32,586	1,073	106
87.01	aortic aneurysm	7,025	13,449	263	164
87.02	other aneurysm	1,868	18,480	619	145
88	ARTERIAL EMBOLISM AND THROMBOSIS	982	29,422	803	85
88.01	arterial embolism and thrombosis (blood clots)	6,377	19,200	322	134

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
CIRCULATORY DISORDERS (continued)					
89	PERIPHERAL VASCULAR DISEASE	1,179	29,863	812	93
89.01	specified peripheral vascular disease	3,082	13,762	406	164
89.02	Raynaud's syndrome	948	7,505	526	216
89.03	peripheral vascular disease	30,616	10,022	97	169
89.04	other arterial disease	6,846	13,983	266	157
89.05	disease of capillaries	918	5,818	429	223
89.06	vascular insufficiency of intestines	1,550	23,079	882	150
89.07	gangrene	3,370	28,232	545	112
90	THROMBOPHLEBITIS	1,663	19,384	470	99
90.01	phlebitis and thrombophlebitis	13,716	13,742	179	153
90.02	noninfectious lymphatic disorders	1,511	10,205	412	157
90.03	hemorrhage nos	1,126	18,424	915	167
90.04	compression of vein	933	14,444	713	151
91	HYPOTENSION (LOW BLOOD PRESSURE)	599	16,719	783	115
91.01	hypotension (low blood pressure)	8,113	16,467	267	146
92	OTHER CIRCULATORY DISEASE	479	18,897	910	105
92.01	superficial phlebitis-leg	1,949	10,011	363	160
92.02	varicose veins	9,265	7,303	138	182
92.03	other circulatory disease/postphlebitic syndrome	5,777	14,065	294	159
92.04	other specified circulatory disorders	8,196	10,163	196	174
DISORDERS OF THE EYE AND ADNEXA					
93	DISORDERS OF THE EYE AND ADNEXA	945	11,118	492	136
93.01	diabetic retinopathy	9,906	7,631	133	174
93.02	proliferative diabetic retinopathy	1,909	9,150	336	161
93.03	endophthalmitis (eye inflammation)	520	8,970	673	171
93.04	retinal disorders	54,643	4,576	41	208
93.05	glaucoma	56,024	4,030	38	223
93.06	cataract/lens replacement	177,409	4,026	21	217
93.07	disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	22,684	3,437	53	230
93.08	vitreous hemorrhage	1,414	7,085	293	156
93.09	other eye disorders	118,492	4,491	28	218
DISORDERS OF THE EAR AND MASTOID PROCESS					
94	EAR DISORDERS	494	8,630	463	119
94.01	impacted earwax	27,319	4,053	55	224
94.02	otitis media (middle ear infection)	16,385	4,286	75	224
94.03	vertiginous syndromes (e.g., vertigo, Meniere's disease)	11,455	4,569	85	198
94.04	hearing loss	17,444	5,090	81	211
94.05	other ear disorders	20,486	4,508	69	220
DISEASES OF THE RESPIRATORY SYSTEM					
95	NOSE/ THROAT DISEASES	599	16,074	819	125
95.01	acute nose/throat infection (e.g., common cold)	76,452	4,450	37	233
95.02	nasal polyps/allergic rhinitis (e.g., hay fever)	23,138	3,799	55	219
95.03	chronic sinusitis	20,774	4,690	73	223
95.04	larynx/vocal cord diseases	2,141	9,523	466	226
95.05	paralysis of vocal cords/larynx	551	21,675	1,382	150
95.06	disorders of teeth, gum, and jaw (e.g., periodontitis, gingivitis)	5,106	6,443	191	211
95.07	other diseases of upper respiratory system	12,132	5,530	111	221
95.08	salivary gland diseases	1,824	7,112	428	257
95.09	oral soft tissue/tongue/jaw disorders	4,714	6,595	198	206
96	EMPHYSEMA/CHRONIC BRONCHITIS	4,511	20,230	332	110
96.01	emphysema/chronic bronchitis	60,841	9,585	61	180
97	OTHER BRONCHITIS	1,553	15,763	433	108
97.01	other bronchitis	74,211	5,968	46	208

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF THE RESPIRATORY SYSTEM (continued)					
98	VIRAL PNEUMONIA/INFLUENZA	262	15,319	1,813	192
98.01	viral pneumonia	2,564	16,293	477	148
98.02	influenza	8,261	7,096	173	222
99	GRAM-NEGATIVE/STAPHYLOCOCCUS PNEUMONIA	2,155	28,506	666	108
99.01	gram-negative/staph pneumonia	3,985	30,787	658	135
100	BACTERIAL PNEUMONIA	9,277	19,236	229	115
100.01	pneumococcal and other specific bacterial pneumonia	4,033	18,730	414	140
100.02	other and unspecified pneumonia	41,993	15,328	119	159
101	ASTHMA	1,575	17,748	570	128
101.01	asthma	23,151	7,848	98	190
102	LUNG DISEASES DUE TO EXTERNAL AGENTS	1,681	32,513	764	96
102.01	bronchiectasis, lung diseases due to specified external agent (e g , black lung disease)	3,166	10,432	317	171
102.02	aspiration pneumonia	3,790	31,292	622	122
102.03	respiratory conditions due to other and unspecified external agents/postinflammatory fibrosis	7,313	12,952	240	158
103	PLEURISY/PNEUMOTHORAX	731	24,174	836	94
103.01	pleurisy/pneumothorax	18,772	22,763	210	126
104	OTHER LUNG DISEASE	673	30,528	1,422	121
104.01	empyema/abscess of lung	890	23,840	1,178	147
104.02	pulmonary congestion/hypostasis	12,515	17,709	233	147
104.03	acute lung edema not elsewhere specified	3,176	27,583	591	121
104.04	post trauma/surgery pulmonary insufficiency	1,655	42,967	1,164	117
104.05	other lung disease	28,408	17,924	152	143
105	RESPIRATORY FAILURE/ARREST	1,746	37,674	1,101	122
105.01	respiratory failure	24,115	21,035	207	153
105.02	respiratory arrest	4,212	40,009	791	128
DISEASES OF THE GENITOURINARY SYSTEM					
106	RENAL FAILURE	952	28,878	1,234	132
106.01	nephritis, dialysis encounter	2,931	17,830	453	138
106.02	acute renal failure	4,696	33,360	632	130
106.03	chronic renal failure	6,185	20,341	389	151
106.04	renal failure, unspecified	6,208	19,463	372	151
106.05	impaired renal function	1,471	12,887	503	150
107	KIDNEY INFECTION	614	14,476	649	111
107.01	kidney infection	4,272	11,247	253	147
108	RENAL/URETERAL/BLADDER CALCULUS	802	10,699	379	99
108.01	renal/ureteral/bladder calculus (e.g., kidney stones)	7,052	8,893	189	178
109	OTHER RENAL/URETERAL DISEASES	347	17,757	847	89
109.01	urethral stricture	5,866	8,100	183	173
109.02	hydronephrosis/other renal/urethral disorders	16,744	13,640	158	150
110	OTHER URINARY TRACT INFECTIONS	3,755	21,030	347	101
110.01	cystitis, other urinary tract infections	88,343	9,108	55	180
111	OTHER URINARY DISORDERS	587	16,852	799	115
111.01	other urinary disorders	29,781	9,292	90	168
112	PROSTATE/TESTICULAR/PENILE DISORDERS	3,345	10,266	216	122
112.01	hyperplasia of prostate	48,567	5,327	51	213
112.02	other prostatic disorders	15,857	5,347	79	187
112.03	penis/testis/male genital organs disorders	8,631	6,521	137	196

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER case LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
DISEASES OF THE GENITOURINARY SYSTEM (continued)					
113	DISEASES OF FEMALE GENITAL ORGANS	684	11,532	564	128
113.01	diseases of female pelvic organs, including pelvic inflammatory disease, endometnosis, ovarian cyst	5,018	8,645	208	171
113.02	vaginal and cervical diseases	16,212	4,457	79	227
113.03	other diseases of female genital organs	10,033	6,702	126	188
113.04	female stress incontinence	3,998	6,084	156	162
113.05	menopausal and postmenopausal disorders	27,600	3,210	46	236
114	GENITAL PROLAPSE	1,111	6,725	180	89
114.01	genital prolapse	7,565	4,257	93	190
PREGNANCY-RELATED CONDITIONS					
115	PREGNANCY/PERINATAL CONDITIONS	120	7,175	805	123
115.01	pregnancy/birth complications, mother/child	3,896	10,675	322	188
115.02	pregnancy with abortive outcome	174	11,327	1,661	193
115.03	normal pregnancy/delivery	361	7,175	746	197
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE					
116	DERMATOLOGICAL DISORDERS	2,383	17,987	395	107
116.01	cellulitis/abscess/other local skin infection	43,600	8,403	76	188
116.02	bullous dermatoses	726	8,353	570	184
117	CHRONIC ULCER OF SKIN	1,132	32,993	790	81
117.01	chronic ulcer of skin	21,094	13,887	149	156
118	OTHER DEMATOLOGICAL DISORDERS	205	17,075	1,052	88
118.01	dermatitis due to internal agent	1,660	11,194	481	175
118.02	psoriasis and similar disorders	4,939	4,896	164	236
118.03	other dermatosis	50,974	3,445	34	224
118.04	diseases of nail (e.g., ingrown toenail)	39,841	6,879	65	189
118.05	other dermatological disorders	89,143	4,710	35	222
CONGENITAL ANOMALIES					
119	CONGENITAL ANOMALIES	167	24,261	1,659	88
119.01	spina bifida, other congenital anomalies of nervous system	1,228	12,643	556	154
119.02	congenital anomalies of eye	2,186	4,845	251	242
119.03	congenital anomalies of cardiac/circulatory systems	8,271	12,741	235	168
119.04	congenital anomalies of musculoskeletal/limb	5,533	8,382	201	179
119.05	congenital anomalies of skin	2,792	5,149	211	216
119.06	Down's syndrome and other chromosomal anomalies	727	3,795	433	308
119.07	other congenital anomalies	6,448	10,211	231	181
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS					
120	GENERAL SYMPTOMS	983	19,244	686	112
120.01	somatic/segmental dysfunction	11,152	3,968	84	223
120.02	dizziness and giddiness	34,231	6,096	64	195
120.03	malaise and fatigue	37,897	8,075	74	177
120.04	other general symptoms	127,236	8,233	44	189
121	COMA/ SYNCOPE	2,235	13,450	345	121
121.01	coma	3,590	21,579	524	145
121.02	syncope (fainting) and collapse	19,876	10,347	106	145
122	FEVER	406	22,211	1,126	102
122.01	fever	14,288	18,289	214	140
123	RESPIRATORY/OTHER CHEST SYMPTOMS	476	16,761	1,050	137
123.01	dyspnea (labored breathing)/other respiratory abnormalities	59,523	12,949	85	160
123.02	hemoptysis (coughing up blood)	2,925	13,564	394	157
123.03	cough	27,475	7,329	84	190
123.04	respiratory/other chest symptoms	31,743	12,014	107	159

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
SYMPTOMS, SIGNS, ILL-DEFINED CONDITIONS (continued)					
124	CARDIOVASCULAR SYMPTOMS	3,424	11,668	247	124
124.01	chest pain	107,457	9,511	49	169
124.02	other cardiovascular symptoms	25,614	8,171	95	186
125	URINARY SYSTEM/ABDOMINAL-PELVIS SYMPTOMS	1,087	15,742	519	109
125.01	retention of urine	10,291	15,427	197	129
125.02	incontinence/urethral discharge	9,264	9,638	161	161
125.03	other urinary system symptoms	23,292	7,437	99	202
125.04	abdominal/pelvis symptoms	90,850	9,493	56	178
INJURY AND POISONING					
126	VERTEBRAL INJURY	735	17,896	686	104
126.01	vertebral fracture without spinal cord injury	6,005	11,525	213	143
126.02	vertebral frac. ... e with spinal cord injury	651	1[illegible],466	817	145
127	FRACTURES OF SKULL/FACE/NASAL BONE	144	22,502	2,387	127
127.01	fractures of skull/face	1,466	13,464	641	182
127.02	fractures of nasal bone	789	8,390	508	170
128	PELVIC FRACTURE	671	17,307	642	96
128.01	pelvic fracture	2,677	14,284	324	117
129	FEMORAL FRACTURE	5,718	22,846	220	73
129.01	femoral fracture	12,028	16,256	159	108
130	LOWER LIMB FRACTURES	924	13,564	421	94
130.01	fractures of lower limb (e.g., leg ankle, foot)	8,410	7,922	146	169
131	OTHER FRACTURES/DISLOCATION	1,368	15,026	425	104
131.01	shoulder dislocation	912	8,401	482	173
131.02	dislocation of hip	478	21,276	1,051	108
131.03	dislocation of knee, including cartilage/meniscus tear	2,638	5,760	173	154
131.04	other dislocations	17,466	3,853	68	232
131.05	fracture of rib, closed	5,028	9,606	229	169
131.06	hand/wrist/lower arm fracture	8,213	6,756	133	178
131.07	other fractures	9,531	9,450	160	166
132	INTERNAL AND/OR OPEN WOUND	684	20,299	856	110
132.01	foreign body in pharynx/larynx	2,507	15,558	528	170
132.02	injury to heart/lung/intrathoracic organs/blood vessels of thorax	1,125	18,169	873	161
132.03	gastrointestinal/liver/kidney/spleen/pelvis injury	1,091	16,946	795	155
132.04	open wound of eye	893	8,083	485	179
132.05	open wound/injury of lower arm	13,846	5,675	98	204
132.06	open wound of other sites	16,581	9,222	137	191
132.07	traumatic amputation of limb/hand/foot/toe	1,480	24,968	766	118
132.08	crushing injury	604	7,572	537	174
132.09	foreign body in eye/ear/nose	2,376	4,185	195	228
133	SPRAINS	613	10,707	420	97
133.01	sprains	38,616	5,085	51	198
134	CONTUSIONS/ACCIDENTS/INJURY, SUPERFICIAL AND NOS	650	15,792	798	129
134.01	concussion	1,262	10,498	461	156
134.02	contusion/superficial injury	53,451	7,513	59	182
134.03	accidental falls	11,004	10,925	144	138
134.04	suicide/self-inflicted injury	272	17,650	1,092	102
134.05	other accidents	7,595	7,918	158	174
135	INTRACRANIAL (HEAD) INJURY	452	26,727	1,284	102
135.01	intracranial (head) injury	5,375	13,276	278	154
136	BURNS/NERVE, SPINAL CORD INJURIES	162	28,977	3,314	146
136.01	third degree burns	277	14,600	1,939	221
136.02	other burns	1,978	8,171	397	216
136.03	nerve injury, including spinal cord injury without vertebral fracture	1,873	11,044	421	165
136.04	early complications of trauma	1,276	21,021	891	151

INJURY AND POISONING (continued)

TABLE H-1

1992 MEDICARE PROGRAM EXPENDITURES AND 1992 FREQUENCY OF ENROLLEES FOR CONCURRENT PRINCIPAL INPATIENT DIAGNOSTIC GROUPS (UPPER CASE LABELS) AND HOSPITAL AND PHYSICIAN DIAGNOSTIC GROUPS (LOWER CASE LABELS)

DXG	Label	Frequency*	Mean Expenditures**	Standard Error of Mean	Coefficient of Variation (x 100)
137	POISONING/TOXIC EFFECTS	882	17,811	657	110
137.01	poisoning by prescription or over-the-counter medications	4,660	14,766	306	142
137.02	poisoning by specified nonmedicinal substances/injury by certain external causes	3,091	11,075	338	170
137.03	poisoning by other nonmedicinal substances	1,749	3,642	194	223
137.04	allergy, unspecified	4,972	4,933	140	200
137.05	adverse effects of correctly prescribed and administered drugs in therapeutic use	13,316	11,578	147	146
138	COMPLICATIONS OF MEDICAL PROCEDURES AND CARE	4,439	27,768	389	93
138.01	malfunction of internal orthopedic device/graft	1,819	18,019	436	103
138.02	infection/inflammation due to internal device/graft, transplant failure/rejection	1,913	30,948	805	114
138.03	other complications of certain specified medical procedures	7,359	22,602	317	120
138.04	other complications of medical and surgical procedures, nec, (e.g., post operative infection)	17,710	23,191	206	118
138.05	misadventure or abnormal reaction/complication of patient during sugery or medical care	1,270	22,014	600	97
FACTORS INFLUENCING HEALTH STATUS/CONTACT WITH HEALTH SERVICES (V-CODE)					
139	ORGAN REPLACEMENT/TRANSPLANT/POST-SURGICAL STATES	583	29,464	1,085	89
139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	539	22,355	1,596	166
139.02	other organ transplant	895	8,164	630	231
139.03	heart, heart valve replacement by artificial device	2,397	14,876	489	151
139.04	joint replacement	5,949	15,966	218	105
139.05	other organ replacement	416	17,552	1,341	156
139.06	artificial opening status/attention	4,398	25,253	500	131
139.07	postsurgical states, eye	298	13,478	816	105
139.08	other postsurgical states, including dialysis status	21,008	14,947	142	138
139.09	aspirator, respirator, other machine dependence	380	71,286	4,681	128
140	REHABILITATION PROCEDURES	4,340	31,800	349	72
140.01	rehabilitation procedures	10,961	19,601	208	111
141	RADIOTHERAPY	148	31,087	1,752	69
141.01	radiation therapy	4,266	15,245	269	115
142	CHEMOTHERAPY	935	34,281	772	89
142.01	chemotherapy	3,437	20,596	382	109
143	HISTORY OF DISEASE/AFTERCARE/SCREENING	1,218	24,426	701	100
143.01	infectious disease contact/carrier	674	4,686	347	192
143.02	vaccination, medical exam, other preventive	38,764	4,297	50	230
143.03	history of malignant neoplasm	22,850	9,230	98	160
143.04	history of mental disorder/other disease	6,998	10,849	194	150
143.05	history of drug allergy/other health hazard	6,696	7,440	174	191
143.06	family history of disease	4,769	4,167	135	223
143.07	problems of internal organs/external sites	1,244	9,656	518	189
143.08	elective surgery	321	8,360	707	152
143.09	prothesis/other device fitting, adjustment	2,091	12,765	454	163
143.10	other orthopedic aftercare	2,468	13,060	326	124
143.11	aftercare	6,543	13,681	254	156
143.12	donor	343	19,230	1,206	116
143.13	household/family/other psychosocial circumstances	539	9,812	606	143
143.14	care not delivered	1,831	12,374	403	140
143.15	administrative/consultation	3,457	8,148	259	187
143.16	screening for malignant neoplasm	26,841	3,141	47	247
143.17	screening/observation/special exams	267,301	6,820	26	200

* Unweighted.

** Weighted by fraction of year beneficiary was alive and eligible for Medicare.

SOURCE: 1992 (expenditures) and 1992 (diagnoses) Medicare claims

TABLE H-2

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN
(ALL) DIAGNOSIS DIAGNOSTIC GROUPS

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PROB>F
MODEL	442	3.87E+13	8.75E+10	1742.329	0.0001
ERROR	679,745	3.41E+13	50202860		
C TOTAL	680,187	7.28E+13			
ROOT MSE	7,085	R-SQUARE	0.5312		
DEP MEAN	3,783	ADJ R-SQ	0.5309		
C.V.	187				

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
	Intercept	1	($150)	$28	-5.38	0.0001
1.01	CNS infection	1	1,615	170	9.51	0.0001
2.01	septicemia/shock	1	6,302	82	77.28	0.0001
3.01	HIV/AIDS	1	4,296	334	12.87	0.0001
4.01	bacterial enteritis	1	2,869	191	15.04	0.0001
4.02	viral enteritis	1	17	151	0.11	0.9114
4.03	other intestinal infections	1	282	146	1.94	0.0526
4.04	tuberculosis	1	273	158	1.73	0.0846
4.05	strep throat/scarlet fever	1	-656	207	-3.17	0.0015
4.06	other bacterial infections	1	1,634	218	7.49	0.0001
4.07	bact Inf in other diseases	1	2,770	73	37.86	0.0001
4.08	herpes zoster	1	-67	85	-0.79	0.4293
4.09	herpes simplex	1	317	157	2.02	0.0433
4.10	hepatitis	1	1,492	265	5.63	0.0001
4.11	other viral infections	1	-213	62	-3.43	0.0006
4.12	late syphilis, symptomatic	1	793	400	1.98	0.0475
4.13	dermatophytosis	1	-354	35	-10.03	0.0001
4.14	thrush	1	1,730	194	8.93	0.0001
4.15	mycoses, miscellaneous	1	1,444	131	10.99	0.0001
4.16	other infections	1	480	77	6.20	0.0001
5.01	infection late effects	1	902	277	3.26	0.0011
5.02	cerebrovasc dis late effects	1	773	77	10.05	0.0001
5.03	injury late effects	1	1,414	172	8.23	0.0001
6.01	cancer of mouth/tongue	1	1,940	226	8.60	0.0001
6.02	cancer of pharynx	1	1,357	283	4.80	0.0001
6.03	cancer of larynx	1	1,155	234	4.94	0.0001
6.04	other resp./intrathoracic cancer	1	983	324	3.03	0.0024
7.01	cancer of esophagus	1	3,490	325	10.74	0.0001
7.02	cancer of stomach	1	3,749	241	15.53	0.0001
7.03	cancer of small bowel	1	1,945	274	7.11	0.0001
7.04	cancer of liver	1	1,679	245	6.84	0.0001
7.05	cancer of pancreas	1	3,780	257	14.73	0.0001
7.06	other cancer of digestive organs	1	647	292	2.22	0.0265
8.01	colon cancer	1	1,183	103	11.53	0.0001
9.01	rectal cancer	1	1,014	113	8.98	0.0001
10.01	lung cancer	1	1,735	101	17.24	0.0001
11.01	breast cancer	1	-172	67	-2.58	0.0100
12.01	lymphoma/Karposi's sarcoma	1	1,626	127	12.79	0.0001
12.02	multiple myeloma	1	1,305	219	5.95	0.0001
12.03	lymphoid leukemia	1	519	196	2.65	0.0081

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN
(ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
12.04	myeloid leukemia	1	6,153	317	19.38	0.0001
12.05	other leukemia	1	2,473	244	10.13	0.0001
13.01	cancer of uterus	1	584	168	3.48	0.0005
13.02	cancer of cervix/female genital	1	803	204	3.94	0.0001
14.01	cancer of placenta/uterine adnexa	1	1,725	210	8.20	0.0001
15.01	prostate cancer	1	736	60	12.24	0.0001
15.02	cancer of testis/male genital	1	1,210	363	3.33	0.0009
16.01	cancer of bladder/urinary organs	1	549	96	5.70	0.0001
17.01	cancer of the eye	1	78	393	0.20	0.8434
17.02	cancer of the brain/nervous system	1	2,279	156	14.64	0.0001
17.03	benign neoplasm brain/nervous	1	1,128	180	6.28	0.0001
18.01	cancer of bone	1	1,267	200	6.33	0.0001
18.02	cancer of connective tissue	1	988	219	4.51	0.0001
18.03	melanoma	1	147	181	0.81	0.4184
18.04	other skin cancer	1	45	50	0.90	0.3669
18.05	thyroid/endocrine cancer	1	225	290	0.77	0.4389
18.06	other/ill-defined site cancer	1	896	84	10.61	0.0001
19.01	secondary cancer of lymph node	1	4,337	150	28.89	0.0001
19.02	secondary cancer of respiratory	1	4,645	122	38.14	0.0001
19.03	secondary cancer of other site	1	3,957	100	39.71	0.0001
19.04	disseminated cancer	1	1,896	191	9.95	0.0001
20.01	benign neoplasm of digestive system	1	-37	56	-0.66	0.5119
20.02	benign neoplasm of resp system	1	218	196	1.11	0.2655
20.03	benign neoplasm of skin	1	-83	55	-1.50	0.1333
20.04	benign neoplasm of breast	1	-338	32	-10.72	0.0001
20.05	benign neoplasm of urinary	1	359	232	1.55	0.1221
20.06	benign neoplasm of eye	1	45	212	0.21	0.8330
20.07	other benign neoplasms	1	271	64	4.23	0.0001
21.01	cancer in situ of digestive organs	1	1,577	183	8.61	0.0001
21.02	cancer in situ of resp system	1	489	244	2.00	0.0452
21.03	cancer in situ of other sites	1	1,076	107	10.10	0.0001
21.04	neoplasm of uncertain behavior	1	982	90	10.85	0.0001
21.05	neoplasm of uncertain behavior	1	235	67	3.53	0.0004
21.06	unspecified neoplasm	1	533	51	10.37	0.0001
22.01	diabetes without comp.	1	66	29	2.26	0.0236
23.01	diabetes w/acute comp.	1	647	131	4.96	0.0001
24.01	diabetes with renal manifestation	1	907	184	4.93	0.0001
24.02	diabetes w/other specified compl.	1	1,065	77	13.89	0.0001
24.03	diabetes w/unspecified complic.	1	1,463	61	23.79	0.0001
25.01	hypoglycemic coma	1	1,558	282	5.52	0.0001
25.02	other hypoglycemia	1	508	115	4.43	0.0001
26.01	disorders of fluid/electrolyte	1	2,309	38	60.68	0.0001
27.01	goiter	1	239	113	2.11	0.0347
27.02	thyrotoxicosis	1	-98	95	-1.03	0.3023
27.03	thyroid disorders	1	-163	38	-4.24	0.0001
27.04	adrenal gland disorders	1	1,053	185	5.70	0.0001
27.05	ovarian dysfunction	1	-62	171	-0.36	0.7165
27.06	testicular dysfunction	1	75	325	0.23	0.8183
27.07	other endocrine disorders	1	-914	132	-6.93	0.0001
27.08	misc. endocrine disorders	1	750	142	5.27	0.0001
27.09	protein-calorie malnutrition	1	5,750	95	60.50	0.0001
27.10	vitamin/other nutritional deficiency	1	-145	97	-1.50	0.1332
27.11	disorders of lipoid metabolism	1	-309	26	-11.85	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
27.12	disorders of plasma protein met.	1	448	176	2.54	0.0110
27.13	disorders of mineral metabolism	1	1,110	115	9.63	0.0001
27.14	metabolism disorders nec/nos	1	-61	167	-0.37	0.7145
27.15	other hyperalimentation	1	586	338	1.73	0.0829
27.16	obesity/localized adiposity	1	862	81	10.64	0.0001
28.01	acute pancreatitis	1	1,435	145	9.87	0.0001
28.02	chronic pancreatitis/other pancr.	1	1,213	140	8.67	0.0001
29.01	end stage liver disorders	1	4,561	238	19.20	0.0001
29.02	esophageal varices	1	3,642	329	11.08	0.0001
30.01	cirrhosis	1	921	156	5.91	0.0001
30.02	other liver disorders	1	-60	87	-0.69	0.4893
31.01	disease of esophagus	1	55	46	1.18	0.2382
32.01	ulcer w/o perforation	1	358	53	6.82	0.0001
32.02	ulcer with perforation	1	2,844	234	12.17	0.0001
33.01	pyloric/duodenal obstruction	1	2,390	261	9.16	0.0001
33.02	gastritis/oth gastric disorder	1	149	29	5.08	0.0001
34.01	appendicitis	1	1,555	249	6.25	0.0001
35.01	abdominal hernia/complicated	1	930	178	5.22	0.0001
36.01	abdominal hernia/uncomplicated	1	28	45	0.64	0.5254
37.01	regional enteritis	1	890	191	4.66	0.0001
37.02	idiopathic proctocolitis	1	33	183	0.18	0.8567
38.01	intestinal obstruction	1	2,484	68	36.34	0.0001
38.02	peritonitis	1	7,183	223	32.22	0.0001
38.03	other peritoneal disorders	1	3,043	182	16.70	0.0001
39.01	divercula of intestine	1	-160	43	-3.75	0.0002
40.01	hemorrhoids	1	-78	56	-1.39	0.1632
40.02	anal/rectal disorders	1	41	53	0.76	0.4455
40.03	intestinal abcess, ulceration,	1	1,941	126	15.40	0.0001
40.04	other intestinal disorders	1	38	46	0.83	0.4092
41.01	cholelithiasis	1	336	88	3.82	0.0001
41.02	biliary tract disease	1	2,984	175	17.01	0.0001
41.03	other gallbladder disorders	1	1,207	81	14.94	0.0001
42.01	gastrointestinal hemorrage	1	1,103	50	22.00	0.0001
43.01	gout/crystal arthropathy	1	-308	65	-4.78	0.0001
43.02	other arthropathy/joint disorders	1	90	26	3.42	0.0006
44.01	connective tissue disease	1	8	101	0.08	0.9353
44.02	rheumatoid arthritis	1	259	61	4.22	0.0001
44.03	inflammatory spondylopathies	1	237	160	1.48	0.1398
44.04	polymyalgia rheumatica	1	-94	116	-0.81	0.4191
45.01	arthropathy w/infection	1	1,528	206	7.42	0.0001
45.02	osteomyelitis	1	2,272	124	18.27	0.0001
46.01	osteoarthrosis	1	16	25	0.64	0.5211
47.01	back disorders	1	-45	28	-1.58	0.1133
48.01	disorders of soft tissue	1	58	27	2.17	0.0301
49.01	osteoporosis	1	460	56	8.22	0.0001
49.02	other bone disorders	1	364	52	7.00	0.0001
49.03	foot disorders	1	-56	62	-0.90	0.3664
49.04	oth acquired limb deformities	1	1,335	118	11.35	0.0001
50.01	anemia	1	1,031	33	31.47	0.0001
51.01	hereditary hemolytic anemias	1	1,316	232	5.68	0.0001
51.02	acquired hemolytic anemia	1	770	294	2.62	0.0089
51.03	aplastic anemia	1	3,492	163	21.39	0.0001
51.04	coagulation defects	1	603	92	6.56	0.0001
51.05	purpura/ throbocytopathy	1	2,366	113	20.99	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
51.06	white blood cell disorders	1	1,444	103	13.96	0.0001
51.07	immune disorders	1	2,607	269	9.68	0.0001
51.08	other blood disease	1	-226	91	-2.48	0.0131
52.01	senile/presenile psychoses	1	-78	60	-1.29	0.1970
52.02	other organic psychoses cond.	1	1,107	135	8.18	0.0001
52.03	cerebral degeneration/Alzheimer's	1	311	64	4.85	0.0001
52.04	senility without psychosis	1	-399	198	-2.02	0.0436
53.01	alcoholic psychoses	1	514	229	2.25	0.0248
53.02	drug psychoses	1	1,873	225	8.31	0.0001
54.01	transient organic mental disorders	1	2,176	109	20.00	0.0001
54.02	hallucinations	1	709	262	2.71	0.0067
55.01	schizophrenic disorders	1	2,256	82	27.51	0.0001
56.01	manic and depressive disorders	1	2,242	67	33.29	0.0001
57.01	paranoid states	1	1,531	246	6.22	0.0001
57.02	other nonorganic psychoses	1	435	65	6.67	0.0001
58.01	neurotic disorders	1	90	45	1.97	0.0486
59.01	alcohol dependence	1	1,553	137	11.36	0.0001
59.02	drug dependence	1	3,363	238	14.15	0.0001
59.03	non-dependent abuse of drugs	1	922	99	9.36	0.0001
60.01	personality disorders	1	2,752	165	16.68	0.0001
60.02	sexual disorders	1	-224	192	-1.16	0.2456
60.03	psychophysiologic disorders	1	-172	236	-0.73	0.4654
60.04	acute reaction to stress	1	-289	174	-1.66	0.0973
60.05	adjustment reaction	1	2,206	114	19.39	0.0001
60.06	nonpsychotic brain syndrome	1	-117	81	-1.44	0.1493
60.07	other depression	1	574	64	9.00	0.0001
60.08	behavior disorder	1	1,082	270	4.00	0.0001
60.09	developmental/behavioral disord.	1	892	244	3.66	0.0003
60.10	mental retardation	1	-439	123	-3.58	0.0003
60.11	other mental disorders	1	159	154	1.03	0.3027
61.01	headaches	1	42	46	0.91	0.3637
62.01	parkinsc 's disease	1	166	77	2.15	0.0313
62.02	extrapyramidal disease	1	422	118	3.57	0.0004
62.03	anterior horn cell disease	1	1,289	330	3.91	0.0001
62.04	other spinal cord disease	1	2,892	213	13.55	0.0001
62.05	autonomic nerve disorder	1	1,448	189	7.67	0.0001
62.06	other CNS diseases	1	110	272	0.41	0.6858
63.01	MS, other CNS dymelination	1	945	177	5.34	0.0001
63.02	infantile cerebral palsy	1	205	229	0.89	0.3711
63.03	quadriplegia	1	3,931	282	13.96	0.0001
63.04	paraplegia	1	3,478	243	14.33	0.0001
63.05	cauda equina syndrome	1	1,135	124	9.13	0.0001
63.06	other paralytic disorders	1	1,873	200	9.36	0.0001
63.07	nervous/musculoskeletal system	1	857	72	11.87	0.0001
63.08	other central nervous system dis.	1	1,263	200	6.30	0.0001
64.01	seizure disorders	1	730	60	12.17	0.0001
65.01	trigeminal nerve disorder	1	136	191	0.71	0.4753
65.02	facial nerve disorders	1	-51	177	-0.29	0.7754
65.03	root/plexus disorders	1	186	284	0.66	0.5115
65.04	root/plexus lesions	1	819	297	2.76	0.0058
65.05	other cranial nerve disorders	1	457	392	1.17	0.2427
65.06	neuropathy of upper limb	1	188	89	2.12	0.0339
65.07	neuropathy of leg	1	-82	89	-0.93	0.3548
66.01	peripheral neuropathy	1	26	97	0.27	0.7862

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
66.02	inflammatory/toxic neuropathy	1	1,497	133	11.25	0.0001
66.03	myoneural disorders	1	758	285	2.66	0.0079
66.04	muscular dystrophies	1	2,274	250	9.10	0.0001
66.05	other neuropathy	1	153	251	0.61	0.5419
67.01	other brain disorders	1	2,815	100	28.23	0.0001
68.01	rheumatic fever/heart disease	1	462	119	3.89	0.0001
68.02	mitral or aortic valve disease	1	649	45	14.43	0.0001
68.03	mitral/aortic valve disorders	1	1,286	92	13.98	0.0001
69.01	essential hypertension	1	93	19	4.77	0.0001
69.02	hypertensive heart disease	1	91	45	2.01	0.0444
70.01	malignant hypertension	1	45	54	0.82	0.4120
70.02	malignant hypertensive heart dis.	1	299	132	2.27	0.0230
70.03	hypertensive heart and renal dis.	1	709	121	5.86	0.0001
70.04	secondary hypertension	1	359	269	1.34	0.1817
70.05	hypertension encephalopathy	1	888	211	4.20	0.0001
71.01	myocardial infarction	1	1,445	76	18.91	0.0001
71.02	old myocardial infarction	1	731	72	10.11	0.0001
71.03	other chronic ischemic heart dis.	1	116	26	4.42	0.0001
72.01	acute myocardial infarction	1	4,551	96	47.55	0.0001
73.01	other acute ischemia	1	3,507	56	62.18	0.0001
74.01	angina pectoris	1	461	40	11.67	0.0001
75.01	pulmonary embolism	1	1,970	130	15.19	0.0001
75.02	other pulmonary heart disease	1	1,908	95	20.10	0.0001
76.01	conduction dis./cardiac dysrhyth.	1	320	34	9.47	0.0001
76.02	premature heart beats	1	155	65	2.39	0.0167
77.01	atrial arrythmia	1	1,066	40	26.96	0.0001
78.01	ventric tachycardia	1	2,741	106	25.83	0.0001
79.01	heart arrest/shock	1	4,470	100	44.74	0.0001
80.01	heart failure	1	653	34	19.30	0.0001
81.01	pericarditis, post-MI	1	2,800	146	19.22	0.0001
81.02	acute endo/myocarditis	1	2,739	276	9.94	0.0001
81.03	cardiomyopathy/myocarditis	1	1,053	72	14.70	0.0001
81.04	cardiomegaly	1	932	51	18.17	0.0001
81.05	other heart disease	1	658	66	9.98	0.0001
82.01	cerebral hemorrhage	1	2,970	121	24.62	0.0001
83.01	precerebral arterial occlusion	1	738	59	12.54	0.0001
84.01	cerebrovascular disease (stroke)	1	930	43	21.41	0.0001
84.02	hemiplegia	1	4,398	97	45.19	0.0001
84.03	aphasia	1	2,513	159	15.80	0.0001
85.01	transient cerebral ischemia	1	101	56	1.80	0.0727
86.01	atherosclerosis of major vessel	1	450	54	8.26	0.0001
86.02	atherosclerosis/general, ascvd	1	214	38	5.61	0.0001
87.01	aortic aneurysm	1	1,316	90	14.59	0.0001
87.02	other aneurysm	1	2,987	172	17.36	0.0001
88.01	arterial embolism and thrombosis	1	2,800	98	28.45	0.0001
89.01	specified peripheral vascular dis.	1	1,269	132	9.59	0.0001
89.02	Raynaud's syndrome	1	321	233	1.37	0.1693
89.03	peripheral vascular disease	1	75	46	1.64	0.1017
89.04	other arterial disease	1	1,345	90	14.87	0.0001
89.05	disease of capillaries	1	245	236	1.04	0.2982
89.06	vascular insufficiency of intestine	1	4,127	194	21.28	0.0001
89.07	gangrene	1	7,140	142	50.40	0.0001
90.01	thrombophlebitis	1	1,382	66	20.99	0.0001
90.02	noninfectious lymphatic disorders	1	401	186	2.15	0.0313

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
90.03	hemorrhage nos	1	3,083	220	14.04	0.0001
90.04	compression of vein	1	843	239	3.54	0.0004
91.01	hypotension	1	1,509	84	17.91	0.0001
92.01	superficial phlebitis-leg	1	172	165	1.04	0.2977
92.02	varicose veins	1	186	77	2.43	0.0151
92.03	other circulatory disease	1	910	98	9.27	0.0001
92.04	oth specified circulatory disorders	1	284	82	3.47	0.0005
93.01	diabetic retinopathy	1	116	79	1.47	0.1415
93.02	proliferative diabetic retinopathy	1	246	174	1.41	0.1582
93.03	endophthalmitis	1	206	314	0.65	0.5133
93.04	retinal disorders	1	-49	33	-1.49	0.1363
93.05	glaucoma	1	64	32	1.99	0.0463
93.06	cataract/lens replacement	1	0	21	-0.01	0.9895
93.07	disorders of refraction and accommodation	1	-122	49	-2.49	0.0127
93.08	vitreous hemorrhage	1	855	195	4.39	0.0001
93.09	other eye disorders	1	16	24	0.65	0.5144
94.01	impacted cerumen	1	-221	45	-4.88	0.0001
94.02	otis media	1	8	58	0.14	0.8857
94.03	vertiginous syndromes	1	-215	69	-3.12	0.0018
94.04	hearing loss	1	43	57	0.75	0.4527
94.05	other ear disorders	1	-19	53	-0.37	0.7152
95.01	acute nose/throat infection	1	-342	29	-11.81	0.0001
95.02	nasal polyps/allergic rhinitis	1	-170	49	-3.44	0.0006
95.03	chronic sinusitis	1	-183	52	-3.51	0.0004
95.04	larynx/vocal cord diseases	1	957	158	6.07	0.0001
95.05	paralysis of vocal cords/larnyx	1	4,117	314	13.09	0.0001
95.06	disorders of teeth and jaw	1	231	101	2.30	0.0217
95.07	other diseases of upper respir.	1	-60	67	-0.90	0.3686
95.08	salivary gland diseases	1	462	168	2.74	0.0061
95.09	oral soft tissue/tongue/jaw dis.	1	-140	105	-1.33	0.1849
96.01	emphysema/chronic bronchitis	1	448	30	14.73	0.0001
97.01	other bronchitis	1	-361	30	-12.07	0.0001
98.01	viral pneumonia	1	946	149	6.37	0.0001
98.02	influenza	1	-268	80	-3.34	0.0008
99.01	gram-neg./staph pneumonia	1	7,281	129	56.30	0.0001
100.01	specific bacterial pneumonia	1	908	122	7.44	0.0001
100.02	other pneumonia	1	1,087	43	25.23	0.0001
101.01	asthma	1	369	50	7.31	0.0001
102.01	bronchiectasis, external agent	1	102	130	0.79	0.4311
102.02	aspiration pneumonia	1	6,086	137	44.51	0.0001
102.03	resp cond (ext agent)	1	305	87	3.50	0.0005
103.01	pleurisy/pneumothorax	1	3,501	61	57.41	0.0001
104.01	empyema/abscess	1	4,382	251	17.48	0.0001
104.02	pulmonary congest/hypostasis	1	1,138	70	16.31	0.0001
104.03	acute lung edema nos	1	2,758	141	19.59	0.0001
104.04	post trauma pulmonary insufficiency	1	12,919	182	71.04	0.0001
104.05	other lung disease	1	2,273	48	47.05	0.0001
105.01	respiratory failure	1	3,509	55	63.60	0.0001
105.02	respiratory arrest	1	12,688	133	95.28	0.0001
106.01	nephritis	1	844	143	5.88	0.0001
106.02	acute renal failure	1	7,066	129	54.79	0.0001
106.03	chronic renal failure	1	1,613	108	15.00	0.0001
106.04	renal failure unspecified	1	405	107	3.80	0.0001
106.05	impaired renal function	1	-494	191	-2.59	0.0097

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
107.01	kidney infection	1	-823	113	-7.27	0.0001
108.01	renal/ureteral/bladder calculus	1	398	88	4.52	0.0001
109.01	urethral stricture	1	88	96	0.91	0.3609
109.02	hydronephrosis/other renal/dis.	1	270	61	4.41	0.0001
110.01	other urinary tract infections	1	380	29	13.00	0.0001
111.01	other urinary disorders	1	301	47	6.45	0.0001
112.01	hyperplasia of prostate	1	25	39	0.66	0.5119
112.02	other prostatic disorders	1	-119	61	-1.94	0.0522
112.03	penis/testis/male gen disorders	1	44	80	0.56	0.5792
113.01	diseases of female pelvic organs	1	730	106	6.88	0.0001
113.02	vaginal and cervical diseases	1	-26	59	-0.44	0.6627
113.03	other diseases of female genitals	1	-10	75	-0.14	0.8920
113.04	female stress incontinence	1	207	117	1.77	0.0769
113.05	menopausal and postmenopausal	1	-55	47	-1.19	0.2357
114.01	genital prolapse	1	151	85	1.78	0.0758
115.01	pregnancy/birth complications	1	919	117	7.88	0.0001
115.02	abortion	1	868	548	1.59	0.1130
115.03	normal pregnancy/delivery	1	5	379	0.01	0.9885
116.01	dermatological disorders	1	246	38	6.47	0.0001
116.02	bullous dermatoses	1	344	269	1.28	0.2018
117.01	chronic ulcer of skin	1	1,715	56	30.70	0.0001
118.01	dermatitis due to internal agents	1	1,312	177	7.40	0.0001
118.02	psoriasis and similar disorders	1	-5	102	-0.05	0.9593
118.03	other dermatosis	1	-121	36	-3.38	0.0007
118.04	diseases of nail	1	-128	40	-3.18	0.0015
118.05	other dermatological disorders	1	-207	27	-7.55	0.0001
119.01	congenital anomalies of nervous	1	70	209	0.33	0.7397
119.02	congenital anomalies of eye	1	411	153	2.70	0.0070
119.03	congenital anomalies of cardiac	1	1,189	81	14.63	0.0001
119.04	congenital anomalies of muscul.	1	769	98	7.88	0.0001
119.05	congenital anomalies of skin	1	-95	136	-0.70	0.4851
119.06	chromosomal anomalies	1	-62	268	-0.23	0.8179
119.07	other congenital anomalies	1	330	91	3.63	0.0003
120.01	somatic/segmental dysfunction	1	48	70	0.69	0.4921
120.02	dizziness and giddiness	1	-265	42	-6.34	0.0001
120.03	malaise and fatigue	1	-221	39	-5.61	0.0001
120.04	other general symptom	1	165	24	6.84	0.0001
121.01	coma	1	2,717	132	20.52	0.0001
121.02	syncope and collapse	1	282	54	5.18	0.0001
122.01	fever	1	1,295	66	19.66	0.0001
123.01	dyspnea/other resp abnormalities	1	931	35	26.66	0.0001
123.02	hemoptysis	1	-60	138	-0.44	0.6624
123.03	cough	1	-425	46	-9.31	0.0001
123.04	respiratory/other chest symptoms	1	514	44	11.62	0.0001
124.01	chest pain	1	380	27	14.02	0.0001
124.02	other cardiovascular symptoms	1	31	47	0.66	0.5115
125.01	retention of urine	1	1,813	77	23.65	0.0001
125.02	incontinence/urethral discharge	1	235	78	3.01	0.0026
125.03	other urinary system symptoms	1	-292	49	-5.91	0.0001
125.04	abdominal/pelvis symptoms	1	120	30	3.97	0.0001
126.01	vertebral fracture w/o spinal fract.	1	646	99	6.52	0.0001
126.02	vertebral fracture with spinal fract.	1	1,715	290	5.91	0.0001
127.01	fractures of skull/face	1	1,560	192	8.13	0.0001
127.02	fractures of nasal bone	1	-695	258	-2.70	0.0070

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
128.01	pelvic fracture	1	1,415	145	9.79	0.0001
129.01	femoral fracture	1	3,899	73	53.49	0.0001
130.01	fractures of lower limb	1	288	80	3.59	0.0003
131.01	shoulder dislocation	1	539	239	2.26	0.0241
131.02	dislocation of hip	1	3,526	341	10.34	0.0001
131.03	dislocation of knee	1	797	140	5.71	0.0001
131.04	other dislocations	1	-22	57	-0.40	0.6909
131.05	fracture of rib, closed	1	-257	104	-2.46	0.0138
131.06	hand/wrist/lower arm fracture	1	226	82	2.75	0.0059
131.07	other fractures	1	470	77	6.10	0.0001
132.01	foreign body in pharnyx/larnyx	1	821	148	5.55	0.0001
132.02	heart/lung/blood vessels injury	1	1,969	222	8.88	0.0001
132.03	gi/liver/kidney/spleen/pelvis	1	1,806	223	8.09	0.0001
132.04	open wound of eye	1	133	241	0.55	0.5816
132.05	open wound/injury of lower arm	1	-482	64	-7.55	0.0001
132.06	open wound of other sites	1	232	59	3.91	0.0001
132.07	amputation of limb/hand/foot/toe	1	4,516	200	22.61	0.0001
132.08	crushing injury	1	-211	292	-0.72	0.4698
132.09	foreign body in eye/ear/nose	1	-80	146	-0.55	0.5841
133.01	sprains	1	-126	39	-3.21	0.0013
134.01	concussion	1	-153	207	-0.74	0.4603
134.02	contusion/superficial injury	1	-167	36	-4.70	0.0001
134.03	accidental falls	1	998	75	13.29	0.0001
134.04	suicide/self-inflicted injury	1	3,485	447	7.80	0.0001
134.05	other accidents	1	306	86	3.54	0.0004
135.01	intracranial injury	1	1,265	105	12.07	0.0001
136.01	third degree burns	1	5,766	447	12.89	0.0001
136.02	other burns	1	688	165	4.16	0.0001
136.03	nerve injury	1	1,053	168	6.28	0.0001
136.04	early complications of trauma	1	3,297	205	16.05	0.0001
137.01	poison effects	1	485	111	4.38	0.0001
137.02	toxic effects, named substance	1	308	131	2.35	0.0186
137.03	toxic effects of other nonmedicinal	1	-367	171	-2.15	0.0316
137.04	allergy, unspecified	1	-213	102	-2.09	0.0371
137.05	adverse effects of drugs	1	306	65	4.70	0.0001
138.01	malfunction of internal orthop. dev.	1	2,375	179	13.28	0.0001
138.02	infection due to int. graft/device	1	5,981	174	34.38	0.0001
138.03	other complications of med. procedures	1	4,246	90	47.18	0.0001
138.04	other compl. of medical care	1	6,013	60	100.32	0.0001
138.05	misadventure to patient in surgery	1	1,953	206	9.47	0.0001
139.01	kidney/heart/lung/liver transplant	1	5,644	317	17.82	0.0001
139.02	other organ transplant	1	934	239	3.90	0.0001
139.03	heart/valve replacement	1	2,057	152	13.50	0.0001
139.04	joint replacement	1	4,642	98	47.21	0.0001
139.05	other organ replacement	1	3,306	353	9.37	0.0001
139.06	artificial opening status/attention	1	4,136	117	35.44	0.0001
139.07	postsurgical states, eye	1	2,368	414	5.72	0.0001
139.08	other postsurgical states	1	2,585	54	48.07	0.0001
139.09	machine dependence	1	32,792	418	78.46	0.0001
140.01	rehabilitation procedures	1	5,348	73	72.77	0.0001
141.01	radiotherapy	1	2,385	119	19.96	0.0001
142.01	chemotherapy	1	2,634	135	19.46	0.0001
143.01	infectious disease contact/carrier	1	-41	275	-0.15	0.8812
143.02	preventive	1	-229	38	-6.10	0.0001

TABLE H-2 (continued)

REGRESSION OF 1992 MEDICARE PROGRAM EXPENDITURES ON 1992 HOSPITAL AND PHYSICIAN (ALL) DIAGNOSIS DIAGNOSTIC GROUPS

ADDXG	VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T FOR H0: PARAMETER=0	VARIABLE PROB > |T|
143.03	history of malignant neoplasm	1	89	54	1.65	0.0984
143.04	history of mental dis/oth disease	1	392	87	4.49	0.0001
143.05	history of drug allergy	1	701	88	7.95	0.0001
143.06	family history of disease	1	-266	104	-2.56	0.0105
143.07	problems of int. organs/ext. sites	1	697	204	3.42	0.0006
143.08	elective surgery	1	726	397	1.83	0.0678
143.09	prothesis/other device fitting	1	81	160	0.51	0.6109
143.10	other orthopedic aftercare	1	1,274	148	8.62	0.0001
143.11	aftercare	1	1,788	91	19.59	0.0001
143.12	donor	1	6,361	387	16.44	0.0001
143.13	family/other pyschosocial circum.	1	994	309	3.21	0.0013
143.14	care not delivered	1	1,166	169	6.92	0.0001
143.15	administrative/consultation	1	183	123	1.49	0.1362
143.16	screening for malignant neoplasm	1	-274	46	-5.93	0.0001
143.17	screening/observation/special exam	1	253	21	12.20	0.0001
	AGE/SEX					
	FEMALE, < 65	1	-71	55	-1.30	0.1923
	FEMALE, 70-74	1	-55	33	-1.67	0.0941
	FEMALE, 75-79	1	-114	35	-3.21	0.0013
	FEMALE, 80-84	1	-237	40	-5.94	0.0001
	FEMALE, 85 OR OLDER	1	-514	43	-12.01	0.0001
	MALE, < 65	1	-232	47	-4.98	0.0001
	MALE, 65-69	1	-24	38	-0.62	0.5334
	MALE, 70-74	1	-73	38	-1.91	0.0563
	MALE, 75-79	1	-194	42	-4.59	0.0001
	MALE, 80-84	1	-430	51	-8.43	0.0001
	MALE, 85 OR OLDER	1	-552	62	-8.97	0.0001

SOURCE. 1992 Medicare claims

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
HOSPITAL AND PHYSICIAN DIAGNOSES							
1	**Septicemia/Shock**			None			
2.01	septicemia/shock	20					
2	**Moderate Cost Infectious Diseases**			None			
3.01	HIV/AIDS (including pneumocytosis)	5	(8)				
4.07	bacterial infection in other diseases	8	(12)				
3	**Other Infectious Disease**			None		Out	Out
1.01	central nervous system infection (e.g., meningitis)	1	(2)				
4.02	viral enteritis (intestinal infections)	1					
4.03	other intestinal infections	1					
4.04	tuberculosis	1					
4.05	strep throat/scarlet fever	0					
4.06	other bacterial infections	1					
4.08	herpes zoster (shingles)	0					
4.09	herpes simplex	1					
4.10	viral hepatitis	1					
4.11	other viral infections	1					
4.12	late syphilis, symptomatic	1					
4.13	dermatophytosis (fungal skin infections, e.g., athlete's foot)	1					
4.14	thrush	1					
4.15	mycoses (fungal diseases), miscellaneous	1					
4.16	other infections	1					
5.01	infection late effects	1	(3)				
4	**Metastatic Cancer**			Neoplasm			
19.01	secondary cancer of lymph node	14	(20)				
19.02	secondary cancer of respiratory and digestive systems	20					
19.03	secondary cancer of other site	10	(8)				
19.04	disseminated cancer	3					
5	**High Cost Cancers**			Neoplasm	If in HCC 4 cannot be in HCC 5.		
7.01	cancer of esophagus	2	(5)				
7.02	cancer of stomach	5	(8)				
7.03	cancer of small bowel/peritoneum	3	(5)				
7.04	cancer of liver	5	(12)				
7.05	cancer of pancreas	14	(12)				
10.01	lung cancer	3	(8)				
12.04	myeloid leukemia	10	(12)				
17.02	cancer of the brain/nervous system/pituitary, pineal glands	3	(8)				
6	**Moderate Cost Cancers**			Neoplasm	If in HCC 4 or 5 cannot be in HCC 8.		
6.01	cancer of mouth/tongue	1	(3)				
6.02	cancer of pharynx	3					
6.03	cancer of larynx	1					
6.04	other respiratory/intrathoracic cancer	3					
6.01	colon cancer	1					
9.01	rectal cancer	1	(3)				
12.01	lymphoma/Karposi's sarcoma/Hodgkin's Disease	1	(2)				
12.02	multiple myeloma	3					
12.03	lymphoid leukemia	1					
12.05	other leukemia	3					
14.01	cancer of ovaries/placenta/uterine adnexia	1	(2)				
15.02	cancer of testis/male genital organs	3	(4)				
18.01	cancer of bone and articular cartilage	3					
18.02	cancer of connective and other soft tissue	1	(2)				
7	**Lower Cost Cancers**			Neoplasm	If in HCC 4, 5, or 8, then cannot be in HCC 7.		
7.06	other, unspecified cancer of digestive organs/ peritonium	1					
11.01	breast cancer	1					
13.01	cancer of uterus	1					
13.02	cancer of cervix/female genital organs	1					
15.01	prostate cancer	1	(3)				
16.01	cancer of bladder/kidney/urinary organs	1					
17.01	cancer of the eye	1					
18.03	melanoma	1					
18.05	thyroid/endocrine cancer	1					
18.06	other/ill-defined site cancer	3					
8	**Carcinoma in Situ**			Neoplasm	If in HCC 4-7, then cannot be in HCC 8.	Out	Out
21.01	carcinoma in situ of digestive organs	4	(5)				
21.02	carcinoma in situ of respiratory system	10	(8)				
21.03	carcinoma in situ of other sites	3	(4)				
9	**Uncertain Neoplasm**			Neoplasm	If in HCC 4 - 8, then cannot be in HCC 9.	Out	Out
21.04	neoplasm of uncertain behavior, specified sites	3					
21.05	neoplasm of uncertain behavior nec/nos	1					
21.06	unspecified neoplasm	1					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
10	**Skin Cancer, except Melanoma**			Neoplasm	If in HCC 4 - 9, then cannot be in HCC 10	Out	Out
18.04	skin cancer, except melanoma, including lip	1					
11	**Benign Neoplasm, Except Breast**			Neoplasm	If in HCC 4 - 10, then cannot be in HCC 11	Out	Out
17.03	benign neoplasm brain/nervous system/pituitary, pineal glands	3	(1)				
20.01	benign neoplasm of digestive system	1					
20.02	benign neoplasm of respiratory system	3					
20.03	benign neoplasm of skin	1					
20.05	benign neoplasm of urinary tract	3	(4)				
20.06	benign neoplasm of eye	1					
20.07	other benign neoplasms	1					
12	**Benign Neoplasm of Breast/Other Breast Disorders**			Neoplasm	If in HCC 4-11, cannot be in HCC 12.	Out	Out
20.04	benign neoplasm of breast/other breast disorders	0					
13	**Diabetes With Complications**			Diabetes			
23.01	diabetes with acute complications	1					
24.01	diabetes with renal manifestation	3	(5)				
24.02	diabetes with other specified complications	1					
24.03	diabetes with unspecified complications	3	(2)				
25.01	hypoglycemic coma	5					
93.02	proliferative diabetic retinopathy	2					
14	**Diabetes Without Complications**			Diabetes	If in HCC 13, then cannot be in HCC 14	Out	Out
22.01	diabetes without complications	1					
93.01	diabetic retinopathy	1					
15	**Protein-Calorie Malnutrition**			None			
27.09	protein-calorie malnutrition	14	(20)				
16	**Other Higher Cost Endocrine, Metabolic, Nutritional Disorders**			None		Out	
26.01	disorders of fluid/electrolyte/acid-base balance	5					
27.04	adrenal gland disorders, e.g., Cushing's syndrome	3					
27.12	disorders of plasma protein metabolism	3					
17	**Other Lower Cost Endocrine, Metabolic, Nutritional Disorders**			None		Out	
25.02	other hypoglycemia	1					
27.01	goiter	1					
27.02	thyrotoxicosis, including Graves' disease	1					
27.03	thyroid disorders	1					
27.05	ovarian dysfunction	0					
27.06	testicular dysfunction	1					
27.07	other endocrine disorders	0					
27.08	pituitary/parathyroid/thymus/polyglandular disorders	1					
27.10	vitamin/other nutritional deficiencies (e.g., rickets, scurvey)	1					
27.13	disorders of mineral metabolism	1					
27.14	metabolism disorders, nec/nos	1					
27.15	other hyperalimentation	1					
27.16	obesity/localized adiposity	1					
18	**High Cholesterol**			None		Out	Out
27.11	disorders of lipoid metabolism (high cholesterol)	0					
19	**Liver Disease**			Liver			
29.01	end stage liver disorders	14	(12)				
29.02	esophageal varices	6	(12)				
20	**Cirrhosis**			Liver	If in HCC 19, cannot be in HCC 20		
30.01	cirrhosis	1					
21	**Peritonitis**			Gastrointestinal			
38.02	peritonitis	27					
22	**High Cost Gastrointestinal Disorders**			Gastrointestinal	If in HCC 21 then cannot be in HCC 22.		
4.01	bacterial enteritis (intestinal infections)	5	(8)				
28.01	acute pancreatitis	5	(8)				
33.01	pyloric/duodenal obstruction	8					
38.01	intestinal obstruction	8					
38.03	other peritoneal disorders	8	(12)				
41.02	biliary tract disease	6	(12)				
23	**Moderate Cost Gastrointestinal Disorders**			Gastrointestinal	If in HCC 21 or 22, cannot be in HCC 23		
32.02	ulcer with perforation	1	(3)				
34.01	appendicitis	3	(5)				
35.01	abdominal hernia, complicated	3					
40.03	intestinal abscess/ulceration/perforation	3					
41.01	cholelithiasis (gallstones)	3	(1)				
41.03	other gallbladder disorders	3	(4)				

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADOCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
24	**Other Gastrointestinal Disorders**			Gastrointestinal	If in HCC 21, 22, or 23, then cannot be in HCC 24.	Out	
28.02	chronic pancreatitis/other pancreatic disease/ intestinal malabsorption	1					
30.02	other liver disorders	1					
31.01	disease of esophagus	1					
32.01	ulcer without perforation	1					
33.02	gastritis/other gastric disorder (stomach disorders)	1					
36.01	abdominal hernia/uncomplicated	1					
37.01	regional enteritis (Crohn's disease)	1					
37.02	ulcerative colitis	1					
39.01	divercula of intestine	1					
40.01	hemorrhoids	1					
40.02	anal/rectal disorders	1					
40.04	other intestinal disorders	1					
42.01	gastrointestinal hemorrhage	1					
25	**Bone and Joint Infections**			None			
45.01	arthropathy with infection	1	(3)				
45.02	osteomyelitis	1	(3)				
26	**Rheumatoid Arthritis and Connective Tissue Disease**			Musculoskeletal			
44.01	systemic lupus erythematosus and other connective tissue disease	1					
44.02	rheumatoid arthritis and other inflammatory polyarthropathy	1					
27	**Other Musculoskeletal and Connective Tissue Disorders**			Musculoskeletal	If in HCC 26 then cannot be in HCC 27.	Out	Out
43.01	gout/crystal arthropathy	0					
43.02	other arthropathy/joint disorders	1					
44.03	inflammatory spondylopathies	1					
44.04	polymyalgia rheumatica	1					
46.01	osteoarthrosis	1					
47.01	back disorders	1					
48.01	disorders of soft tissue (e.g., tendonitis, bursitis)	1					
49.01	osteoporosis	1					
49.02	other bone disorders (e.g., curvature of spine, Paget's disease)	1					
49.03	flat foot, acquired deformities of toe	1					
49.04	other acquired limb deformities	1	(3)				
119.04	congenital anomalies of musculoskeletal/limb	1	(2)				
28	**Aplastic Anemia**			Hematological			
51.03	aplastic anemia	12	(10)				
29	**Blood/Immune Disorders**			Hematological	If in HCC 28 then cannot be in HCC 29		
51.01	sickle cell and other hereditary hemolytic anemias	1					
51.02	acquired hemolytic anemia	3					
51.04	hemophilia and other coagulation defects	3					
51.05	purpura/thrombo...,topathy/hemorrhagic conditions	1					
51.06	white blood cell disorders	1					
51.07	immune disorders	2	(3)				
30	**Iron Deficiency and Other Anemias**			Hematological	If in HCC 28 or 29 then cannot be in HCC 30	Out	
50.01	iron deficiency and other anemias	1					
51.08	other blood disease	1					
31	**Dementia**			None		Out	Out
52.01	senile/presenile psychoses	1					
52.02	other organic psychotic conditions	3					
52.03	cerebral degeneration/Alzheimer's disease	1					
52.04	senility without psychosis	1					
32	**Drug/Alcohol Dependence/Psychoses**			Mental Disorders			
53.01	alcoholic psychoses	8					
53.02	drug psychoses	10	(12)				
59.01	alcohol dependence	4					
59.02	drug dependence	10	(12)				
33	**Higher Cost Mental Disorders**			Mental Disorders	If in HCC 32 then cannot be in HCC 33.		
54.01	delirium/delusions/hallucinations	10	(8)				
54.02	hallucinations, symptomatic	4	(5)				
55.01	schizophrenic disorders	3					
56.01	manic and depressive disorders	3					
57.01	paranoid states	4					
57.02	other nonorganic psychoses	1	(3)				
60.01	personality disorders	8					
134.04	suicide/self-inflicted injury	14					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
34	**Lower Cost Mental Disorders**			Mental Disorders	If in HCC 32 or 33, then cannot be in HCC 34	Out	
58.01	neurotic disorders	1					
59.03	non-dependent abuse of drugs	1					
60.02	sexual disorders	1					
60.03	psychophysiologic disorders	1					
60.04	acute reaction to stress	1					
60.05	adjustment reaction	1					
60.06	nonpsychotic brain syndrome	1					
60.07	other depression	1					
60.08	behavior disorder	1					
60.09	developmental/behavioral disorders	1					
60.10	mental retardation	0					
60.11	other mental disorders	1					
35	**Quadriplegia/Paraplegia**			Nervous System			
63.03	quadriplegia	6	(12)				
63.04	paraplegia	4	(8)				
36	**Higher Cost Neurological Disorders**			Nervous System	If in HCC 35, cannot be in HCC 36.		
62.03	anterior horn cell disease, including Lou Gehrig's disease (ALS)	3					
62.04	other spinal cord disease	3	(8)				
62.05	autonomic nerve disorder	3	(4)				
63.05	cauda equina syndrome	2	(4)				
63.06	other paralytic disorders	3	(8)				
63.08	other central nervous system disorders	4	(5)				
66.02	inflammatory/toxic neuropathy, including Guillain-Barre syndrome	3					
66.04	muscular dystrophies	1	(2)				
67.01	cerebral cysts, compression, edema, anoxic damage other brain conditions	4	(8)				
95.05	paralysis of vocal cords/larynx	3	(4)				
37	**Other Costlier Neurological Disorders**			Nervous System	If in HCC 35 or 36, then cannot be in HCC 37		
83.01	multiple sclerosis, other central nervous system dymelination	2					
64.01	epilepsy and other seizure disorders/convulsions	1					
68.03	myoneural disorders/myasthenia gravis	1					
38	**Other Neurological Disorders**			Nervous System	If in HCC 35, 36, or 37, then cannot be in HCC 38	Out	
62.01	Parkinson's disease	1					
62.02	Huntington's Disease, other abnormal movement disorders	1					
62.06	Other hereditary and degenerative central nervous system diseases	1					
63.02	infantile cerebral palsy	1					
65.01	trigeminal nerve disorder	1					
65.02	facial nerve disorders, including Bell's Palsy	1					
65.03	root/plexus disorders	1					
65.04	root/plexus lesions	1					
65.05	other cranial nerve disorders	1					
65.06	neuropathy of upper limb	1					
65.07	neuropathy of leg	1					
66.01	peripheral neuropathy	1					
66.05	other neuropathy	1					
119.01	spina bifida, other congenital anomalies of nervous system	1					
39	**Respiratory Arrest**			Cardio-Respiratory Arrest		Out	
105.02	respiratory arrest	40					
40	**Heart Arrest/Shock**			Cardio-Respiratory Arrest	If in HCC 39, then cannot be in HCC 40.	Out	
79.01	heart arrest/shock	3	(8)				
41	**Acute Myocardial Infarction (Heart Attack)**			Heart			
72.01	acute myocardial infarction (heart attack)	17					
42	**Other High-Cost Acute Heart Disease**			Heart	If in HCC 41, cannot be in HCC 42.		
73.01	other acute ischemia	7	(8)				
78.01	ventric tachycardia	8					
81.01	pericarditis, post-MI	3	(8)				
81.02	acute endo/myocarditis	1					
43	**Congestive Heart Failure**			Heart	If in HCC 41 or 42, then cannot be in HCC 43		
75.02	other pulmonary heart disease	3					
80.01	heart failure	1					
81.03	cardiomyopathy/myocarditis	3	(2)				
44	**Atrial Arrhythmia**			Heart	If in 41 or 42 or 43, then cannot be in HCC 44		
77.01	atrial arrhythmia	1					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
45	**Valvular Heart Disease**			Heart	If in HCC 41 - 44, then cannot be in HCC 45		
68.01	rheumatic fever/heart disease	3					
68.02	mitral or aortic valve/endocardia disease	1					
68.03	mitral/aortic valve disorders	3	(4)				
46	**Coronary Artery Disease**			Heart	If in HCC 41 - 44, then cannot be in HCC 46	Out	Out
71.01	myocardial infarction	1					
71.02	old myocardial infarction	3	(1)				
71.03	other chronic ischemic heart disease	1					
74.01	angina pectoris	1					
47	**Other Heart Disorders**			Heart	If in HCC 41-46, cannot be in HCC 47.	Out	Out
76.01	conduction disorders/cardiac dysrhythmias	1					
119.03	congenital anomalies of cardiac/circulatory systems	1					
48	**Hypertensive Heart Disease**			Heart	If in HCC 41-47, cannot be in HCC 48.	Out	Out
69.02	hypertensive heart disease	1					
70.02	malignant hypertensive heart disease	1					
70.03	hypertensive heart and renal disease	1					
70.05	hypertension encephalopathy	3					
49	**Heart Disease, Miscellaneous**			Heart	If in HCC 41-48 cannot be in HCC 49	Out	Out
76.02	premature heart beats	1					
81.04	cardiomegaly (enlarged heart)	3	(4)				
81.05	other heart disease	1					
50	**Hypertension (High Blood Pressure)**			Heart	If in HCC 41-49, cannot be in HCC 50	Out	Out
69.01	essential hypertension	0					
70.01	malignant hypertension	0					
70.04	secondary hypertension	1					
51	**Hemiplegia/Aphasia**			Cerebrovascular			
84.02	hemiplegia (paralysis of one side of body)	14					
84.03	aphasia (loss of language skills/comprehension)	14					
52	**Cerebral Hemorrhage**			Cerebrovascular	If in HCC 51, cannot be HCC 52.		
82.01	cerebral hemorrhage	6	(8)				
53	**Cerebrovascular Disease**			Cerebrovascular	If in HCC 51 or 52, cannot be in HCC 53		
5.02	cerebrovascular disease late effects	3					
83.01	precerebral arterial occlusion	3					
84.01	cerebrovascular accident (stroke)	1					
85.01	transient cerebral ischemia	1	(3)				
54	**Gangrene**			Vascular			
89.07	gangrene	23					
55	**Higher Cost Vascular Disease**			Vascular	If in HCC 54, cannot be in HCC 55.		
87.01	aortic aneurysm	3					
87.02	other aneurysm	3	(8)				
88.01	arterial embolism and thrombosis	5	(8)				
89.06	vascular insufficiency of intestines	8					
56	**Other Vascular Disease**			Vascular	If in HCC 54 or 55, cannot be in HCC 56	Out	
88.01	atherosclerosis of major vessel	1					
88.02	atherosclerosis/general, ascvd	1					
89.01	specified peripheral vascular disease	1					
89.02	Raynaud's syndrome	0					
89.03	peripheral vascular disease	1					
89.04	other arterial disease	3					
89.05	disease of capillaries	1					
90.01	phlebitis and thrombophlebitis	1	(3)				
90.02	noninfectious lymphatic disorders	3					
90.03	hemorrhage nos	1	(8)				
90.04	compression of vein	1					
91.01	hypotension (low blood pressure)	3					
92.01	superficial phlebitis-leg	1					
92.02	varicose veins	1					
92.03	other circulatory disease/postphlebitic syndrome	1					
92.04	other specified circulatory disorders	1					
57	**Severe Acute Lung Conditions**			Lung			
75.01	pulmonary embolism	8	(12)				
103.01	pleurisy/pneumothorax	10	(12)				
104.03	acute lung edema nos	17	(20)				
104.04	post trauma/surgery pulmonary insufficiency	40					
105.01	respiratory failure	6	(8)				
58	**High Cost Pneumonia**			Lung			
99.01	gram-negative/staphylococus pneumonia	23	(20)				
102.02	aspiration pneumonia	23	(27)				

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
59	**Moderate Cost Pneumonia**			Lung	If in HCC 58, then cannot be in HCC 59		
	100.01 pneumococcal and other specific bacterial pneumoni	8	(8)				
	104.01 empyema/abscess	3					
60	**Other and Unspecified Pneumonia**			Lung	If in HCC 58 or 59, cannot be in HCC 60.	Out	
	98.01 viral pneumonia	3					
	100.02 other and unspecified pneumonia	1					
61	**Chronic Lung Disease**			Lung			
	96.01 emphysema/chronic bronchitis	1					
	101.01 asthma	1					
	102.01 bronchiectasis/lung disease due to specified external agents (e.g., black lung disease)	1					
	102.03 respiratory conditions due to other and unspecified external agents/post inflammatory fibrosis	1	(3)				
62	**Other Lung Disease**			Lung	If in HCC 57-61, cannot be in HCC 62.	Out	
	97.01 other bronchitis	1					
	98.02 influenza	1					
	104.02 pulmonary congestion/hypostasis	1	(2)				
	104.05 other lung disease	3					
63	**High Cost Eye Disorders**			Eye, Ear, Nose, and Throat			
	93.03 endophthalmitis (eye inflammation)	1	(3)				
	93.08 vitreous hemorrhage	3					
64	**Other Eye Disorders**			Eye, Ear, Nose, and Throat	If in HCC 63, cannot be in HCC 64	Out	Out
	93.04 retinal disorders	1					
	93.05 glaucoma	1					
	93.06 cataract/lens replacement	1					
	93.09 other eye disorders	1					
	119.02 congenital anomalies of eye	1					
65	**Ear, Nose, Mouth, and Throat Disorders**			Eye, Ear, Nose, and Throat		Out	Out
	94.03 vertiginous syndromes (e.g., vertigo, Meniere's disease)	1					
	94.04 hearing loss	1					
	94.05 other ear disorders	1					
	95.02 nasal polyps/allergic rhinitis (e.g., hay fever)	1					
	95.03 chronic sinusitis	1					
	95.04 larynx/vocal cord diseases	1					
	95.06 disorders of teeth, gum, and jaw (e.g. periodontitis, gingivitis)	1					
	95.07 other diseases of upper respiratory system	1					
	95.08 salivary gland diseases	1					
	95.09 other oral soft tissue/tongue/jaw disorders	1					
66	**Low Cost Eye, Ear, Nose and Throat Disorders**			Eye, Ear, Nose, and Throat	If in HCC 63 - 65, cannot be in HCC 66	Out	Out
	93.07 disorders of refraction and accommodation (e.g., far-, near-sightedness, astigmatism)	0					
	94.01 impacted earwax	0					
	94.02 otitis media (middle ear infection)	0					
	95.01 acute nose/throat infection (e.g., common cold)	0					
67	**Acute Renal Failure**			Urinary			
	106.02 acute renal failure	27					
68	**Other Renal Failure**			Urinary	If in HCC 67, then cannot be in HCC 68.		
	106.01 nephritis, dialysis encounter	3					
	106.03 chronic renal failure	3	(5)				
	106.04 renal failure, unspecified	3	(1)				
69	**Other Urinary System Disorders**			Urinary	If in HCC 67 or 68, cannot be in HCC 69.	Out	
	106.05 impaired renal function	1					
	107.01 kidney infection	1					
	108.01 renal/ureteral/bladder calculus	1					
	109.01 urethral stricture	1					
	109.02 hydronephrosis/other renal/urethral disorders	1	(3)				
	110.01 other urinary tract infections	1					
	111.01 other urinary disorders	1					
70	**Genital Disorders**			None		Out	Out
	112.01 hyperplasia of prostate	1					
	112.02 other prostatic disorders	1					
	112.03 penis/testis/male genital organs disorders	1					
	113.01 diseases of fema... pelvic organs	1	(2)				
	113.02 vaginal and cervical diseases	1					
	113.03 other diseases of female genital organs	1					
	113.04 female stress incontinence	1					
	113.05 menopausal and postmenopausal disorders	0					
	114.01 genital prolapse	1					

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CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCO*		HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
71	**Pregnancy/Perinatal Conditions**			None		Out	
	115.01 pregnancy/birth complications, mother/child	1					
	115.02 pregnancy with abortive outcome	1					
	115.03 normal pregnancy/delivery	1					
72	**Chronic Ulcer of Skin**			Skin			
	117.01 chronic ulcer of skin	1	(2)				
73	**Other Dermatological Disorders**			Skin	If in HCC 72, cannot be HCC 73	Out	Out
	116.01 cellulitis/abscess/other local skin infection	1					
	116.02 bullous dermatoses	1					
	118.01 dermatitis due to substances taken internally (e.g., food, drugs)	1					
	118.02 psoriasis and similar disorders	1	(0)				
	118.03 other dermatosis	0	(1)				
	118.04 diseases of nail (e.g., ingrown toenail)	1					
	118.05 other dermatological disorders	1					
	119.05 congenital anomalies of skin	1					
74	**Vertebral Fractures**			Injury			
	126.01 vertebral fracture without spinal cord injury	3					
	126.02 vertebral fracture with spinal cord injury	3	(5)				
75	**Hip Fracture/Dislocation**			Injury			
	128.01 pelvic fracture	8	(4)				
	129.01 femoral fracture	8	(12)				
	131.02 dislocation of hip	17					
76	**Higher Cost Injuries and Poisonings**			Injury			
	127.01 fractures of skull/face	3	(2)				
	131.03 dislocation of knee, including cartilage/meniscus tear	2					
	132.02 injury to heart/lung/intrathoracic organs/blood vessels of thorax	3	(4)				
	132.03 gastrointestinal/liver/kidney/spleen/pelvis injury	3	(4)				
	132.07 traumatic amputation of limb/hand/foot/toe	4	(5)				
	135.01 intracranial injury	3	(1)				
	136.01 third degree burns	5					
	136.04 early complications of trauma	1	(3)				
	137.01 accidental poisoning by prescription or over-the-counter medications/biological substances, including medication errors	3					
77	**Lower Cost Injuries and Poisonings**			Injury	If in HCC 74-76, cannot be in HCC 77	Out	
	5.03 injury late effects	3	(4)				
	127.02 fractures of nasal bone	1					
	130.01 fractures of lower limb	1					
	131.01 shoulder dislocation	1	(2)				
	131.04 other dislocations	1					
	131.05 fracture of rib, closed	1					
	131.06 hand/wrist/lower arm fracture	1					
	131.07 other fractures	1					
	132.01 foreign body in pharynx/larynx	1					
	132.04 open wound of eye	1					
	132.05 open wound/injury of lower arm	1					
	132.08 open wound of other sites	1					
	132.08 crushing injury	1	(0)				
	132.09 foreign body in eye/ear/nose	1					
	133.01 sprains	1					
	134.01 concussion	1	(3)				
	134.02 contusion/superficial injury	1					
	134.03 accidental falls	1					
	134.05 other accidents	1					
	136.02 other burns	1					
	136.03 nerve injury	1					
	137.02 toxic effects, named substance	1					
	137.03 toxic effects of other nonmedicinal substances	0					
	137.04 allergy, unspecified	0					
	137.05 adverse effects of correctly prescribed and administered drugs in therapeutic use	1					
78	**Complications of Medical and Surgical Care**			None		Out	
	138.01 malfunction of internal orthopedic device/graft	4					
	138.02 infection/inflammation due to internal device/graft, transplant failure/rejection	27					
	138.03 other complications of certain specified medical procedures	14					
	138.04 other complications of medical and surgical procedures, nec (e.g., post-operative infection)	14					
	138.05 misadventure or abnormal reaction/complication of patient during surgery or medical care	17					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADDCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
79	**Coma**		None			
121.01	coma	8				
80	**Major Symptoms**		None		Out	Out
63.07	nervous/muscu/oskeletal system symptoms	1				
121.02	syncope (fainting) and collapse	3				
122.01	fever	3				
123.01	dyspnea (labored breathing)/other respiratory abnormalities	1				
123.02	hemoptysis (coughing up blood)	1				
123.04	respiratory/other chest symptoms	1				
124.01	chest pain	1				
125.01	retention of urine	5				
125.02	incontinence/urethral discharge	1				
125.04	abdominal/pelvis symptoms	1				
81	**Minor Symptoms, Signs, Findings**		None		Out	Out
61.01	headaches	1				
119.06	chromosomal anomalies	0				
119.07	other congenital anomalies	1				
120.01	somatic/segmental dysfunction	1				
120.02	dizziness and giddiness	1				
120.03	malaise and fatigue	1				
120.04	other general symptoms	1				
123.03	cough	1				
124.02	other cardiovascular symptoms	1				
125.03	other urinary system symptoms	1				
143.01	infectious disease contact/carrier	0				
143.07	problems of internal organs/external sites	2				
143.13	household/family/other psychosocial circumstances	3				
143.14	care not delivered	3				
PROCEDURES, AND FACTORS INFLUENCING CONTACT WITH HEALTH SERVICES						
82	**Heart, Lung, Kidney, Liver Transplant**		Transplant			
P9	heart, lung, kidney, liver transplant					
83	**Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)**		Transplant	If in HCC 82, then cannot be in HCC 83		
139.01	kidney, heart, heart valve (human/animal tissue), lung, liver transplant	3				
84	**Other Organ Transplant/Replacement**		None		Out	Out
139.02	other organ transplant	1				
139.03	heart, heart valve replacement by artificial device	3				
139.04	joint replacement	8				
139.05	other organ replacement	3				
85	**Tracheostomy**		Artificial Opening, Tracheostomy			
P5	tracheostomy					
86	**Gastrostomy**		Artificial Opening			
P3	gastrostomy					
87	**Enterostomy**		Artificial Opening			
P4	enterostomy					
88	**Artificial Opening Status/Attention**		Artificial Opening	If in HCC 85-87, then cannot be in HCC 88		
139.06	artificial opening status/attention	8				
89	**Machine Dependence**		Tracheostomy	If in HCC 85, then cannot be in HCC 89.		
139.09	aspirator, respirator, other machine dependence	40				
P1	intubation/mechanical ventilation					
90	**Post-Surgical States/Aftercare/Rehabilitation Procedures**		None		Out	Out
139.07	postsurgical states, eye	6				
139.08	other postsurgical states, including dialysis status	3				
140.01	rehabilitation procedures	14				
143.08	elective surgery	3				
143.09	prosthesis/other device fitting, adjustment	3				
143.10	other orthopedic aftercare	3				
143.11	aftercare	1				
143.12	donor	14				
91	**Chemotherapy**					
142.01	chemotherapy	4	Chemo-/Radio-Therapy			
P8	chemotherapy					
92	**Radiation Therapy**		Chemo-/Radio-Therapy	If in HCC 91, then cannot be in HCC 92.	Out	Out
141.01	radiation therapy	6				
P10	radiation oncology					

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC		Concurrent ADOCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
93	**Venous Access Port**		None			
	P7 venous access port					
94	**Dialysis**		None			
	P2 dialysis					
95	**Surgical Amputations**		None			
	P6 surgical amputations					
96	**Preventive/Screening/Observation/Special Exams**		None		Out	Out
	143.02 vaccination, medical exam, other preventive	0				
	143.15 administrative/consultation	1				
	143.16 screening for malignant neoplasm	0				
	143.17 screening/observation/special exams	1				
97	**History of Disease**		None		Out	Out
	143.03 history of malignant neoplasm	1				
	143.04 history of mental disorder/other disease	1				
	143.05 history of drug allergy/other health hazard	1				
	143.06 family history of disease	0				

PRINCIPAL HOSPITAL INPATIENT DIAGNOSTIC GROUPS

98 **Highest Incremental Cost Principal Inpatient Diagnoses**
- 2 Moderate Cost Infectious Diseases
- 4 Metastatic Cancer
- 5 High Cost Cancers
- 19 Liver Disease
- 35 Quadriplegia/Paraplegia
- 41 Acute Myocardial Infarction (Heart Attack)
- 45 Valvular Heart Disease
- 51 Hemiplegia/Aphasia
- 52 Cerebral Hemorrhage
- 55 Higher Cost Vascular Disease
- 72 Chronic Ulcer of Skin

99 **High Incremental Cost Principal Inpatient Diagnoses**
- 6 Moderate Cost Cancers
- 9 Uncertain Neoplasm
- 20 Cirrhosis
- 25 Bone and Joint Infections
- 26 Rheumatoid Arthritis and Connective Tissue Disease
- 27 Other Musculoskeletal and Connective Tissue Disorders
- 29 Blood/Immune Disorders
- 33 Higher Cost Mental Disorders
- 40 Heart Arrest/Shock
- 42 Other High-Cost Acute Heart Disease
- 46 Coronary Artery Disease
- 54 Gangrene
- 57 Severe Acute Lung Conditions
- 75 Hip Fracture/Dislocation

100 **Moderate Incremental Cost Principal Inpatient Diagnoses**
- 3 Other Infectious Disease
- 7 Lower Cost Cancers
- 8 Carcinoma in Situ
- 10 Skin Cancer, except Melanoma
- 11 Benign Neoplasm, Except Breast
- 12 Benign Neoplasm of Breast/Other Breast Disorders
- 13 Diabetes With Complications
- 14 Diabetes Without Complications
- 21 Peritonitis
- 22 High Cost Gastrointestinal Disorders
- 23 Moderate Cost Gastrointestinal Disorders
- 28 Aplastic Anemia
- 31 Dementia
- 32 Drug/Alcohol Dependence/Psychoses
- 36 Higher Cost Neurological Disorders
- 38 Other Neurological Disorders
- 43 Congestive Heart Failure
- 47 Other Heart Disorders
- 53 Cerebrovascular Disease
- 56 Other Vascular Disease
- 58 High Cost Pneumonia
- 61 Chronic Lung Disease
- 68 Other Renal Failure
- 76 Higher Cost Injuries and Poisonings
- 78 Complications of Medical and Surgical Care
- 91 Chemotherapy
- 92 Radiation Therapy

TABLE H-3

CONCURRENT HIERARCHICAL COEXISTING CONDITIONS (HCCs)

HCC	Concurrent ADDCG*	HCC Hierarchy	Hierarchy Rule	Status for Models: Payment	Status for Models: Classification
101 Lower Incremental Cost Principal Inpatient Diagnoses					
1 Septicemia/Shock					
16 Other Higher Cost Endocrine, Metabolic, Nutritional Disorders					
17 Other Lower Cost Endocrine, Metabolic, Nutritional Disorders					
24 Other Gastrointestinal Disorders					
30 Iron Deficiency and Other Anemias					
34 Lower Cost Mental Disorders					
37 Other Costlier Neurological Disorders					
39 Respiratory Arrest					
44 Atrial Arrhythmia					
48 Hypertensive Heart Disease					
50 Hypertension (High Blood Pressure)					
59 Moderate Cost Pneumonia					
60 Other and Unspecified Pneumonia					
62 Other Lung Disease					
63 High Cost Eye Disorders					
64 Other Eye Disorders					
69 Other Urinary System Disorders					
70 Genital Disorders					
73 Other Dermatological Disorders					
74 Vertebral Fractures					
77 Lower Cost Injuries and Poisonings					
79 Coma					
88 Artificial Opening Status/Attention					
102 Lowest Incremental Cost Principal Inpatient Diagnoses					
49 Heart Disease, Miscellaneous					
65 Ear, Nose, Mouth, and Throat Disorders					
66 Low Cost Eye, Ear, Nose, and Throat Disorders					
67 Acute Renal Failure					
71 Pregnancy/Perinatal Conditions					
103 Other Principal Inpatient Diagnoses				Out	Out
15 Protein-Calorie Malnutrition					
18 High Cholesterol					
80 Major Symptoms					
81 Minor Symptoms, Signs, Findings					
83 Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)					
84 Other Organ Transplant/Replacement					
89 Machine Dependence					
90 Post-Surgical States/Aftercare/Rehabilitation Procedures					
96 Preventive/Screening/Observation/Special Exams					
97 History of Disease					
OTHER RISK FACTORS					
104 Age/Sex					
Female: Younger than 65					
Female: 65-69					
Female: 70-74					
Female: 75-79					
Female: 80-84					
Female: 85 or older					
Male: Younger than 65					
Male: 65-69					
Male: 70-74					
Male: 75-79					
Male: 80-84					
Male: 85 or older					

* Numbers in parentheses indicate DCGs assigned excluding symptom, V-code, and complications of medical/surgical care DXGs. These DCGs are shown only where different.

SOURCE: 1992 (Diagnoses) and 1992 (Expenditures) Medicare claims.

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
---	INTERCEPT	-319	29 *	193	26 *	-278	30 *
1	Septicemia/Shock	6,622	80 *	8,087	84 *	7,597	85 *
2	Moderate Cost Infectious Diseases	3,447	71 *	4,939	74 *	3,568	75 *
3	Other Infectious Disease	52	27	--	--	-17	29
4	Metastatic Cancer	5,175	75 *	5,971	77 *	8,109	73 *
5	High Cost Cancers	2,541	83 *	3,174	86 *	3,491	87 *
6	Moderate Cost Cancers	713	60 *	1,352	62 *	1,621	62 *
7	Lower Cost Cancers	212	42 *	741	42 *	855	43 *
8	Carcinoma in Situ	97	173	--	--	154	183
9	Uncertain Neoplasm	194	50 *	--	--	235	53 *
10	Skin Cancer, except Melanoma	-104	61	--	--	73	64
11	Benign Neoplasm, Except Breast	73	44	--	--	125	46 *
12	Benign Neoplasm of Breast/Other Breast Disorders	-336	36 *	--	--	-264	38 *
13	Diabetes With Complications	1,634	46 *	2,068	48 *	1,670	48 *
14	Diabetes Without Complications	106	30 *	--	--	83	31 *
15	Protein-Calorie Malnutrition	5,068	97 *	6,393	101 *	7,052	100 *
16	Other Higher Cost Endocrine, Metabolic, Nutritional Disorders	2,884	37 *	--	--	2,892	39 *
17	Other Lower Cost Endocrine, Metabolic, Nutritional Disorders	202	30 *	--	--	216	31 *
18	High Cholesterol	-312	26 *	--	--	-345	28 *
19	Liver Disease	4,723	194 *	5,603	203 *	5,374	205 *
20	Cirrhosis	669	166 *	1,212	174 *	427	176 *
21	Peritonitis	9,119	221 *	11,586	231 *	12,465	232 *
22	High Cost Gastrointestinal Disorders	3,514	57 *	5,200	58 *	3,840	60 *
23	Moderate Cost Gastrointestinal Disorders	1,444	60 *	2,415	61 *	1,497	63 *
24	Other Gastrointestinal Disorders	203	23 *	--	--	241	24 *
25	Bone and Joint Infections	2,473	109 *	3,459	113 *	2,973	114 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
26	Rheumatoid Arthritis and Connective Tissue Disease	396	55 *	1,008	56 *	462	58 *
27	Other Musculoskeletal and Connective Tissue Disorders	-30	20	--	--	83	21 *
28	Aplastic Anemia	5,654	161 *	6,019	168 *	6,674	169 *
29	Blood/Immune Disorders	2,050	59 *	2,720	62 *	2,575	63 *
30	Iron Deficiency and Other Anemias	1,331	32 *	--	--	1,443	34 *
31	Dementia	254	46 *	--	--	70	49
32	Drug/Alcohol Dependence/Psychoses	3,833	101 *	4,567	105 *	3,883	106 *
33	Higher Cost Mental Disorders	1,936	43 *	2,472	43 *	1,873	45 *
34	Lower Cost Mental Disorders	175	36 *	--	--	126	38 *
35	Quadriplegia/Paraplegia	5,206	188 *	6,552	197 *	6,254	199 *
36	Higher Cost Neurological Disorders	2,455	58 *	3,270	60 *	3,070	61 *
37	Other Costlier Neurological Disorders	761	60 *	1,149	62 *	748	63 *
38	Other Neurological Disorders	331	43 *	--	--	391	45 *
39	Respiratory Arrest	9,639	136 *	--	--	16,639	139 *
40	Heart Arrest/Shock	4,336	105 *	--	--	5,399	110 *
41	Acute Myocardial Infarction (Heart Attack)	9,004	85 *	11,926	86 *	9,645	89 *
42	Other High-Cost Acute Heart Disease	4,756	52 *	6,857	51 *	5,327	55 *
43	Congestive Heart Failure	1,227	35 *	2,340	34 *	1,424	37 *
44	Atrial Arrhythmia	583	54 *	1,348	55 *	842	57 *
45	Valvular Heart Disease	403	60 *	1,155	62 *	588	63 *
46	Coronary Artery Disease	-49	30	--	--	133	32 *
47	Other Heart Disorders	104	55	--	--	232	58 *
48	Hypertensive Heart Disease	33	67	--	--	36	70
49	Heart Disease, Miscellaneous	155	79	--	--	291	84 *
50	Hypertension (High Blood Pressure)	-46	25	--	--	-26	26
51	Hemiplegia/Aphasia	6,414	82 *	7,818	85 *	7,188	86 *
52	Cerebral Hemorrhage	3,130	135 *	3,876	141 *	3,486	142 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
53	Cerebrovascular Disease	911	34 *	1,526	35 *	971	36 *
54	Gangrene	7,061	152 *	7,849	159 *	10,223	144 *
55	Higher Cost Vascular Disease	2,998	64 *	3,931	66 *	3,341	68 *
56	Other Vascular Disease	575	27 *	--	--	662	28 *
57	Severe Acute Lung Conditions	4,344	43 *	5,927	44 *	5,263	45 *
58	High Cost Pneumonia	7,676	99 *	8,144	103 *	9,277	104 *
59	Moderate Cost Pneumonia	2,690	119 *	2,990	124 *	2,645	126 *
60	Other and Unspecified Pneumonia	1,444	43 *	--	--	1,548	46 *
61	Chronic Lung Disease	734	27 *	1,277	28 *	727	29 *
62	Other Lung Disease	262	33 *	--	--	295	35 *
63	High Cost Eye Disorders	511	165 *	1,011	172 *	543	174 *
64	Other Eye Disorders	-120	19 *	--	--	-98	20 *
65	Ear, Nose, Mouth, and Throat Disorders	-195	26 *	--	--	-135	28 *
66	Low Cost Eye, Ear, Nose, and Throat Disorders	-403	39 *	--	--	-410	41 *
67	Acute Renal Failure	6,851	126 *	8,356	131 *	10,172	129 *
68	Other Renal Failure	1,655	78 *	2,444	81 *	1,848	82 *
69	Other Urinary System Disorders	522	26 *	--	--	504	27 *
70	Genital Disorders	-13	25	--	--	26	26
71	Pregnancy/Perinatal Conditions	1,303	111 *	--	--	1,437	117 *
72	Chronic Ulcer of Skin	1,892	55 *	2,442	57 *	1,914	59 *
73	Other Dermatological Disorders	-87	22 *	--	--	-95	23 *
74	Vertebral Fractures	1,193	93 *	1,730	97 *	1,329	98 *
75	Hip Fracture/Dislocation	4,342	66 *	6,785	67 *	5,176	69 *
76	Higher Cost Injuries and Poisonings	2,007	57 *	2,914	59 *	2,553	60 *
77	Lower Cost Injuries and Poisonings	90	24 *	--	--	222	25 *
78	Complications of Medical and Surgical Care	6,670	50 *	--	--	8,454	52 *
79	Coma	2,599	132 *	3,440	139 *	3,363	140 *

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
80	Major Symptoms	691	22 *	--	--	798	24 *
81	Minor Symptoms, Signs, Findings	173	21 *	--	--	262	22 *
82	Heart, Lung, Kidney, Liver Transplant	120,188	1,946 *	126,486	2,039 *	--	--
83	Heart, Heart Valve, Kidney, Lung, Liver Transplant (status/history)	3,175	319 *	6,884	333 *	--	--
84	Other Organ Transplant/Replacement	4,507	76 *	--	--	--	--
85	Tracheostomy	59,695	307 *	63,513	315 *	--	--
86	Gastrostomy	5,194	173 *	7,303	180 *	--	--
87	Enterostomy	11,571	332 *	13,345	348 *	--	--
88	Artificial Opening Status/Attention	3,510	130 *	5,284	136 *	--	--
89	Machine Dependence	7,272	77 *	8,775	76 *	--	--
90	Post-Surgical States/Aftercare/ Rehabilitation Procedures	3,833	40 *	--	--	--	--
91	Chemotherapy	3,416	98 *	3,843	103 *	--	--
92	Radiation Therapy	-1,136	135 *	--	--	--	--
93	Venous Access Port	7,008	233 *	8,347	244 *	--	--
94	Dialysis	20,537	345 *	22,274	361 *	--	--
95	Surgical Amputations	12,541	277 *	14,509	290 *	--	--
96	Preventive/Screening/Observation/ Special Exams	322	20 *	--	--	--	--
97	History of Disease	431	40 *	--	--	--	--
98	Highest Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
99	High Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
100	Moderate Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
101	Lower Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
102	Lowest Incremental Cost Principal Inpatient Diagnoses	--	--	--	--	--	--
103	Other Principal Inpatient Diagnoses	--	--	--	--	--	--

TABLE H-4

HIERARCHICAL COEXISTING CONDITIONS CONCURRENT MODEL PARAMETER ESTIMATES

		HCCP-C MODEL (R^2=.5250)		HCCP PAYMENT MODEL (R^2 = .4782)		HCC-C MODEL (R^2=.4704)	
HCC	DESCRIPTIVE LABEL	COEFF.	STD. ERR.	COEFF.	STD. ERR.	COEFF.	STD. ERR.
	AGE/SEX						
	FEMALE, < 65	142	54 *	246	56 *	155	57 *
	FEMALE, 70-74	-12	33	68	35	-51	35
	FEMALE, 75-79	-65	35	104	37 *	-123	37 *
	FEMALE, 80-84	-195	40 *	26	41	-335	42 *
	FEMALE, 85 OR OLDER	-580	42 *	-372	43 *	-857	45 *
	MALE, < 65	33	46	-114	47 *	49	48
	MALE, 65-69	102	37 *	72	38	149	39 *
	MALE, 70-74	61	37	98	38 *	110	39 *
	MALE, 75-79	-31	41	93	42 *	-16	43
	MALE, 80-84	-260	50 *	-117	51 *	-393	53 *
	MALE, 85 OR OLDER	-454	61 *	-235	63 *	-780	64 *

* indicates p <= .05 (coefficient is statistically significant)

NOTE: Omitted age/sex category is female, 65-69.

SOURCE: 1992 (Expenditures) and 1992 (Diagnoses) Medicare claims

APPENDIX I:

SPECIALTY CODES CONSIDERED
PHYSICIAN SPECIALTIES

TABLE I-1

1991 SPECIALTY CODES CONSIDERED PHYSICIAN SPECIALTIES

Specialty Code and Description	
01	General Practice
02	General Surgery
03	Allergy/Immunology
04	Otolaryngology
05	Anesthesiology
06	Cardiology
07	Dermatology
08	Family Practice
09	Gynecology (Osteo)
10	Gastroenterology
11	Internal Medicine
12	Osteo. Manipulative Therapy
13	Neurology
14	Neurosurgery
15	Obstetrics (Osteo)
16	Obstetrics/Gynecology
17	Ear, Nose, Throat (Osteo)
18	Ophthalmology
19	Oral Surgery (Dentists only)
20	Orthopedic Surgery
21	Path. Anat., Clinical Pathology (Osteo)
22	Pathology
23	Peripheral Vascular Disease (Osteo)
24	Plastic and Reconstructive Surgery
25	Physical Medicine and Rehabilitation
26	Psychiatry
27	Psychiatry, Neurology (Osteo)
28	Colorectal Surgery
29	Pulmonary Disease
30	Diagnostic Radiology
31	Roentgenology,Radiology (Osteo)
32	Radiation Therapy (Osteo)
33	Thoracic Surgery
34	Urology

Specialty Code and Description	
35	Chiropractic
36	Nuclear Medicine
37	Pediatric Medicine
38	Geriatric Medicine
39	Nephrology
40	Hand Surgery
41	Optometrist
44	Infectious Disease
46	Endocrinology
48	Podiatry
66	Rheumatology
70	Clinic/Other Grp Practice, except GPPP
76	Peripheral Vascular Disease
77	Vascular Surgery
78	Cardiac Surgery
79	Addiction Medicine
81	Critical Care (Intensivists)
82	Ophthalmology-Cataracts Specialty
83	Hematology/Oncology
84	Preventive Medicine
85	Maxillofacial Surgery
86	Neuropsychiatry
90	Medical Oncology
91	Surgical Oncology
92	Radiation Oncology
93	Emergency Medicine
94	Interventional Radiology
96	Unknown Physician Specialty
99	Unknown Supplier/Provider

SOURCE: May 1992 HCFA BPO memo.

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